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ORIGINAL ARTICLES.

ON PERSISTENT FLATNESS ON PERCUSSION OVER THE LIVER AS PROOF THAT DIFFUSE PERITONITIS IS NOT ASSOCIATED WITH INTESTINAL OR GASTRIC PERFORATION.[1]

BY AUSTIN FLINT, M.D.

AT the annual meeting of the Medical Society of the State of New York, in 1882, I read a paper entitled "On the physical diagnosis of peritonitis, with and without perforation of the alimentary canal." This paper was published in the volume of the *Transactions* of the Society for that year. The chief object of the paper was to call attention to the value of persistent hepatic flatness on percussion in cases of diffuse peritonitis, as constituting proof that perforation of the alimentary canal has not taken place. I did not claim originality in submitting this point in diagnosis. It is true that few, if any, American authors had taken cognizance of it, and I think that reference to it will be found in few, if any, British works on practical medicine. It is, however, noticed by some recent German writers. The portion of my paper which I suppose to have been original, was an account of experiments upon the cadaver, which demonstrated that the injection into the peritoneal cavity of a moderate quantity of air causes the disappearance of the flatness on percussion over the liver, ascertained to have existed prior to the introduction of the air.

It must be apparent, on a little reflection, that the point in diagnosis involved in these experiments is an important one. With reference to prognosis, and in some measure to treatment, it is desirable to know whether or not diffuse peritonitis is associated with perforation. If, therefore, persistent hepatic flatness on percussion be a physical sign which warrants the exclusion of perforation in all, or even in a considerable proportion of cases, the diagnostic point certainly is worthy of consideration. My paper was published in THE MEDICAL NEWS, as well as in the *Transactions* of the New York State Medical Society. I do not recollect to have seen the point in diagnosis noticed in the writings of my brethren at home since the publication of the paper. I may, however, mention that at the meeting of the International Congress last summer, at Copenhagen, Prof. Ewart, of Berlin, well known by his writings on diseases of the digestive system, took occasion to tell me that he had read the paper, and that he was interested in the experiments. I had also an opportunity of presenting the topic at the Medical Section of the Congress, in a discussion upon the treatment of peritonitis by opium, availing myself also of the opportunity of stating the services of Alonzo Clark, in the inauguration of that method of treatment thirty years ago.

My object in the present paper is to cite, and to offer brief comments on a case reported in the article on peritonitis, contained in the second volume, just published, of the *System of Medicine by American Authors*. The chief interest of the case relates to its bearing on the value of persistent flatness on percussion over the liver as a means of excluding perforation. The case, quoted in full, is as follows:

"March 3, 1883, autopsy of Wm. Fletcher, age 59, iron-worker. On Friday last, February 23d, he was attacked with pain in the region of the right iliac fossa; it was severe. There was no chill, but little fever, and only slight acceleration of the pulse. His stomach was a good deal disturbed, and the bowels were soon distended with flatus. I saw him on Tuesday following, with James D. Elliott. The bowels were a good deal swollen and very resonant on percussion; pulse 84. His stomach was still greatly disturbed, so that he retained no food, yet there was no green vomit, but much flatulency. The movements in respiration were particularly noticeable, being nearly or quite as much abdominal as in health. There was a short friction sound in inspiration, but an entire absence of the sound produced by peristaltic action. There was no dulness on percussion over the iliac fossa, and no pain on pressure over any part of the abdomen. I was careful in examining the right fossa, for the first pain was there, and it was severe; but there was no physical sign by which the perforation could be ascertained, still my mind dwelt on the probability of perforation, and I expressed my fears to Elliott regarding it. The respiration was of natural frequency. The bowels had not moved for two or three days."

"The next day Flint was added to the consultation. The symptoms had changed but little; the pulse was 102; no pain, no tenderness, no peristaltic action; slight friction at one point only; the abdominal respiration was as marked as before. Frequency of respiration 18; patient sleepy; pupils only slightly contracted. When we were in consultation I again expressed my fear of perforation, but Flint expressed the most decided opinion as to its absence, because there was no dulness to percussion over the liver. I had seen his paper on the intrusion of gas between the ribs and liver in cases of intestinal perforation, and felt as if I were almost reproved for entertaining the thought without physical corroboration."

"Monday, March 1st, the stomach has become more retentive; there was no pain and no tenderness on pressure; pulse 109; no friction sound, no sound of peristaltic action, no dulness on percussion over right iliac fossa, but resonance over the whole abdomen, excepting over the pubes; there the resonance was not clear; over a small space there was dulness, this was ascribed to moderate fulness of the bladder, and, as there had been no difficulty in emptying it, nothing was said of it. The abdominal respiratory movements were the same as before."

"Friday morning at 3 A. M., no marked change had occurred in the symptoms, but from this time onward

[1] Read at a stated meeting of the New York County Medical Association, June 15, 1885.

there was a steady sinking of the vital powers. The pulse grew small and frequent, the hands became cool, the breathing more frequent, and without any sudden change or new symptoms, he died early in the morning. At the last visit there was no resonance on percussion over the liver."

"Autopsy, Saturday, March 3d, 2 P. M. The bowels were distended, as they mostly are in peritonitis, but not extraordinarily. There was now pretty free resonance over the liver. The section to open the abdominal cavity was carefully made, with the aim of ascertaining whether there was air or gas in the peritoneal cavity. When a half-inch opening was made through the peritoneum, gas was forced out through it for some seconds with an unmistakable noise. The bowels were not opened by this cut. The bowels exposed, a very thin film of false membrane was found on the middle and upper portions of the intestines, with a fringe of injection where the folds came in contact. But two or three inches above the symphysis pubis, the section opened a collection of pus which extended downward into the pelvis. Somewhere hereabout—neither of us could say exactly where—was found a lump of fecal matter, not indurated, as large as a marrowfat bean, the intestine still unopened. Search was made for the vermiform appendix. At first it was not recognized on account of its remarkable shortness; it was found, however, pointing directly toward the median line of the body, and was short because a part had been separated from the rest by slough. The end of what remained was marked by a border, one-eighth of an inch deep, of a very dark green gangrenous color. We did not attempt to measure the quantity of pus. It was six ounces or more. It was completely bounded and shut in by adhesions."

"At no time during life was there resonance over the liver, but there was at the time of post-mortem examination before the bowels were opened, due perhaps to the fact that at death the relaxation of the muscles allowed the gas to rise higher than it did during life. The unusual median position of the abscess is important in accounting for the absence of dulness, where it is usually found in slough or ulcer of the vermiform appendix."[1]

I infer from the foregoing report that the reporter regarded this case as invalidating the value of persistent flatness on percussion over the liver as a physical sign denoting absence of air or gas within the peritoneal cavity. This seems a fair inference although a decided opinion to that effect is not expressed. There is no other reference to my paper or to this sign in the article on peritonitis. Admitting the correctness of the facts in the case as stated in the report, my interpretation of them differs from that of the reporter.

Here was a case in which a patient was suddenly attacked with severe pain in the right iliac fossa. Four days afterward, when first seen by the reporter of the case, this pain had ceased, the movements of respiration were abdominal, there was no pain on pressure over any part of the abdomen, the pulse was 84, and the respirations of natural frequency. I submit that there was insufficient evidence of acute diffuse peritonitis at that time. On the fifth day I was added to the consultation. The symptoms were unchanged, except that there was some more increase of the frequency of the pulse (102). Flatness on percussion over the liver persisted, and on this fact I based a decided opinion that there was no diffusion of air or gas within the peritoneal cavity. On the sixth day, there was no change in the symptoms, except that there was some further increase in the frequency of the pulse (109), and improvement as regards the disturbance of the stomach. Up to this date the prognosis had been favorable. On the seventh day, at 3 o'clock in the morning, no marked change in the symptoms had taken place, but shortly afterwards the symptoms of collapse were rapidly developed, and death took place within a few hours.

The autopsy showed a circumscribed collection of pus—a peritoneal abscess—around the cæcum, with sloughing away of a portion of the appendix vermiformis, and the appearance of a very recent diffuse peritonitis. The flatness on percussion over the liver had disappeared, and on opening the abdomen gas escaped freely. My interpretation of these facts was, and is, that a few hours before death the gaseous, with perhaps some of the purulent, contents of the peritoneal abscess escaped beyond the boundaries of the abscess, and hence the development of diffuse peritonitis; the collapse and death being due to the latter.

At the time of the occurrence of this case, I made a brief memorandum of it in an interleaved copy of my treatise on the *Principles and Practice of Medicine*, with a view to the utilization of the case in a future edition of the work, as an illustration of the usefulness of persistent hepatic flatness in deciding against the presence of gas in the peritoneal cavity. My memorandum is as follows:

"February 28th, visited Mr. P. with Drs. Elliott and Clark. Peritonitis had existed for three or four days. At this time hepatic flatness was marked. He was apparently doing well under full opiate treatment, after March 2d, at 3 o'clock A.M. At that hour he was seen by Dr. Elliott, and there was no change for the worse. At 6 o'clock A.M., he was in collapse, and died during the forenoon. Before the autopsy, percussion showed absence of hepatic flatness, and great abdominal distention, a portion of the vermiform appendix had sloughed away, leaving an opening. There was a local collection of purulent matter near the appendix, but elsewhere the appearances did not denote intense inflammation. Conclusion: The patient was progressing favorably when sloughing of the appendix caused an opening, and death was by shock. The large intestine was collapsed; the small intestine much distended with gas. March 4, 1883."

This case is of interest in another point of view than with regard to the validity of persistent flatness over the liver, as proof against the presence of air in the peritoneal cavity, namely, the opportunity which it offered for surgical interference. It is often easier to look back upon the history of a case with the light afforded by an autopsy, and to consider what might have been done, than to decide upon a bold measure of treatment during the progress of the case. Here was a circumscribed peritoneal abscess as shown by the post-mortem examination. Had the purulent collection been demonstrated by exploration and removed by aspiration, it is possible that recovery might have taken place; or, again, the question may be raised, whether a free incision into the abscess might not have been advisable, and the perforated appendix ligated. As bearing on these

[1] System of Med. by American Authors, vol. ii. p. 1157.

points of inquiry, a case reported by Dr. Z. B. Adams, of Framingham, Massachusetts, in the *Boston Medical and Surgical Journal*, November 20, 1884, is of much interest. In this case a peritoneal abscess was opened, a quart of pus escaping, and subsequent injections of carbolized water resorted to, complete recovery taking place. I may also refer to a paper by Leyden, in the *Verhandlungen des Vereins für innere Medicin zu Berlin*, in which this writer expresses the opinion that suppurative peritonitis should be treated after the plan in use in empyema, and cases are cited in support of this opinion.[1]

I must content myself with this bare allusion to the surgical treatment in cases of peritonitis, a subject which offers a wide scope for consideration and discussion.

TWO CASES OF FRIEDREICH'S DISEASE.[2]

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THE two cases which I shall relate resemble in many respects the so-called Friedreich's disease, but in both is wanting one characteristic feature, namely, the hereditary or congenital history. In all of the cases reported by Friedreich there were two or more instances of the disease in the families to which the patients belonged. Gowers reported five cases of this form of ataxia in a family of nine children.

The cases of Friedreich and Gowers are not, strictly speaking, hereditary, for neither the parents nor any of the ancestors, as far as known, were ataxic. Cases are on record, however, which are hereditary; for instance, those of Carré, reported by Brousse, in which of twelve children seven were ataxic; the mother was ataxic, and her brothers and sisters, eight in number, as well as one cousin, were also affected with ataxia.

As far as I can discover, none of the progenitors of either of the cases which I report are ataxic. The brothers and sisters also appear to be healthy in all respects. I am indebted to the kindness of Dr. Weir Mitchell for the opportunity of reporting the following case:

CASE I.—C. G., æt. 18 years, male, consulted Dr. Mitchell in May, 1884. The following notes were taken by Dr. Morris J. Lewis: "There is no history of ataxia or of nervous trouble in his family. A paternal uncle and two first cousins had phthisis. No consumption in immediate family. Until eleven years of age the patient was considered perfectly healthy. He then had scarlatina, but recovered perfectly and had no kidney complications.

"An awkwardness, which had been previously noticed, but which had been thought to be habit, now became more marked, but it was not until the age of fifteen that he became aware of it himself. When thirteen he had an abscess of the lower jaw, and after this his disability increased more rapidly. His difficulty in walking is described as being 'a winding shuffling gait.' This was the first symptom noticed, but almost immediately after this he was observed to be awkward in the management of his arms and hands, and to have some hesitation in speech. The exact time of the appearance of each symptom cannot be fixed more accurately. Previous to this trouble he was considered in school to be a fluent speaker, and to be quick and bright, but since then he 'thinks slowly' and his speech is slow and awkward.

"Before 1876 he had occasional asthmatic attacks, which were relieved by smoking stramonium. In 1883 he had an attack of 'intermittent fever' and was in bed for three months (the rest in bed was ordered for his nervous trouble and not for his malaria). Since then he has never walked without help. For five years there has been difficulty in walking in the dark.

"*Present condition.*—He cannot walk without help, and then only with great difficulty and fatigue. His gait is exactly like that of an ataxic. He has great difficulty in writing or doing anything with his hands. His writing, however, has always been bad and awkwardly performed. He has not and never has had lancinating pains, areas of anæsthesia, or numbness. The knee jerk, cremaster and abdominal reflexes are all absent. He has no trouble of vision, his pupillary reflexes are present, and there is no nystagmus. There are no visceral crises, nor are there any trophic changes.

"Both great toes are the seat of considerable contracture, they are turned upwards towards the dorsum of the feet. There is also some contraction of the plantar fascia.

"He has perfect control over his bowels; there is some difficulty in the commencement of the act of urinating, but not after the flow has begun."

CASE II.—Mary G., æt. 11 years, came to my clinic at the Orthopædic Hospital and Infirmary for Nervous Diseases. She is the oldest of five children. The others are all healthy and have had no diseases of the nervous system. The parents are healthy, and neither they nor any ancestors they know of have had any nervous affections. Mary has had no other illness, except measles, which she had after the present trouble began. About October, 1882, when she was eight years old, her mother noticed that her hands were unsteady, and that she dropped things; then she walked awkwardly, and often stumbled and fell. This awkwardness and incoördination has increased. At no time has there been pain of any kind in the limbs or body. There has been no disorder of the bladder or rectum, and there have been no attacks of gastric disturbance. Her general health has been good and she has continued at school.

Present condition, May, 1885.—The patient is well nourished, and the limbs are full and well developed. While standing, the body sways to and fro, and this increases to a considerable extent when the eyes are closed; in fact, the patient would fall if she were not caught. There is marked anteroposterior curvature of the spine. This is muscular, and not due to caries of the spine. A line let fall from the neck falls clear of the sacrum. The movements of the hands are awkward and badly directed, but she can execute most movements. The patella

[1] Vide Am. Journ. Med. Sciences, page 573, April, 1885.
[2] Read before the American Neurological Society, June 19, 1885.

reflex is absent on both sides. Skin reflexes good. Pupillary reflexes good for light and accommodation. The sensation of the skin is undisturbed, and there is no analgesia. The skin of the legs seems thicker than usual, and is closely adherent to the cellular tissue. The muscles of the legs respond normally to the faradic current. The response to galvanism seems to be quantitatively lessened, but so great pain is caused by this current that it is difficult to determine positively the degree of response. There is no affection of speech, and the intelligence is good.

The patient's walk is peculiar, but does not closely resemble that of an ataxic person. It is unsteady and staggering. When her eyes are closed she has difficulty in guiding the fingers to place them on any part. Urine normal. Dr. Charles A. Oliver has kindly made a most thorough and scientific study of the ocular conditions of the case. The following is his report:

O. D. V.$=\frac{6}{6}$. Sn. 0.5 D. 8 cm.—63 cm.

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Conjunctivæ have numerous small phlyctenulæ. Corneæ clear. Pupils round, three millimetres each in horizontal diameter. Irides equally mobile for both light stimulus and accommodative effort. Extraocular motion in all directions; no doubling of images produced. Upon extreme convergence and extreme divergence, both conjoined and separately, a horizontal nystagmus develops itself—this being of a peculiar character—three or four movements, each one lessening; the primary excursion extending over two or three millimetres, at about the rate of two to three per second, until fixation establishes itself. When binocular fixing is attempted for an object at about thirty centimetres distance on the median line, the horizontal nystagmic motion occurs, the eyes being first *out* under cover. In Von Gräfe's test (dot and line), the patient denies either persistent homonymous or crossed images; in a few moment's time the false image swinging upon the vertical line occupied by the true dot.

Ophthalmoscopic Examination without the Use of a Mydriatic.—O. D. Media clear. Disk round, about six diameters in apparent size. Decidedly gray in its deeper layers and rather over capillary in its superficial substance. Retinal arteries and veins normal in comparative size, color, and area of current. Scleral ring plainly seen in and out. Heavy black choroidal ring to the nasal side of the nerve. To the temporal side of the disk there is a black crescent of pigment with a narrow area of disturbed choroid beyond. Some retinal lymph reflexes specially along the main stems of the retinal arteries and veins. Macular region healthy in appearance. Fine retinal striation extending around the entire disk and far out into the retina, but nowhere hiding the outline of the nerve entrance. No splotches or hemorrhages can be seen throughout the entire fundus. H. with Ah. about 1 D. and 0.5 D.

O. S. Media clear. Disk vertical oval, six by seven diameters in apparent magnitude. Much grayer in its deeper layers than in the other eye, with about the same superficial capillarity. Edges of disk everywhere visible, yet slightly veiled by a fine striation of retinal fibres. Scleral ring visible all around the nerve, but rather more plainly seen to the temporal and nasal sides. To the outside of the disk there is a narrow black rim of pigment, whilst to the inside there is a faint trace of a choroidal ring. Retinal vessels normal in relation to their average size, color, and calibre. No visible splotches or hemorrhages. Macular region appears healthy. Numerous lymph reflexes generally situated along the vascular distribution of the retina. H. with As. about 1 D. to 1.5 D.

Color Perception at Five Metres.

O. D.		O. S.	
Red.	3 mm.	Red.	3 mm.
Green	4 mm. = blue. 8 mm. = green.	Green	9 mm.
Blue	7 mm. = green. 13 mm. = blue.	Blue	7 mm. = green. 13 mm. = blue.
Yellow	10 mm. = yellow.	Yellow	7 mm. = yellow.

(This done by color-sense measure.)

Résumé and Conclusion.

1. Acuteness of Direct Vision for Form.—Normal in each eye. This shows that the brunt of the disease has fallen but slightly upon those fibres of the optic nerves which are distributed to the macular regions of the ocular retinæ; this, no doubt, being dependent upon their greater physical strength and their greater resisting powers to pathological change.

2. Direct Vision for Color.—The first test was made by placing the patient at five metres distance from a mechanical contrivance in which definite areas of certain known colors can be exposed to each eye separately.[1] Four colors were tried (red, green, blue, and yellow). The comparative results with the two eyes were about the same, although it must be remembered that the left eye, which was the second tested, had the advantage of previous knowledge, even though an attempt was made to exclude this error by telling the patient that a new card of colors would be used; the average results being what has been before determined to be normal.[2] The second test, which consisted in a modification of Holmgren's method of wool selection, in first having all of the skeins thrown upon a dead black surface and then adding to his three tests a blue and a yellow selection (which the present writer has elsewhere designated as "confirmation tests"),[3] showed the earliest recognizable state of subnormal color-perception in which the condition is manifested "by an incapability to respond to very weak intensities of the entire number of pure natural colors which constitute the normal average power of the human visual apparatus; this expression of inability being more pronounced with those beams of natural colored light which are productive of "green."[4]

These two series of results show that the atrophic change in the optic nerve fibres distributed to the macular regions of the ocular retinæ is in its incipiency, this being evinced by the slight recognizable defect in color-perception. The reason that the fault is more manifest amongst the "greens," is that such natural colors are the most difficult for normal perception.

3. Visual Fields.—These were carefully taken with a one-centimetre square each of white, yellow, blue, and red, at thirty centimetres distance, for each eye separately. No scotomata, excepting the normal ones for the disk areas (which in themselves were not abnormally enlarged), could be found. Each field for white was uniformly contracted in all meridians to about twenty to thirty degrees. The fields for yellow were limited to spaces bounded by twenty degrees. Blue area obtained from the right eye occupied an irregular space bordered by a circle equivalent to about fifteen degrees, whilst the same color in the left eye was seen in a space bounded by only five to eight degrees. The red field in

[1] Description in Arch. of Ophthal., 1881, vol. x. No. 4, p. 438.
[2] Arch. of Ophthal., vol. xi. No. 1, p. 65.
[3] American Journal of the Medical Sciences, January, 1884.
[4] Ibid., April, 1885, p. 470.

the right eye enclosed a space of about five degrees in all directions, whilst the same color in the other eye gave an area of about two to three degrees.

These unequal and great contractions of the visual fields in the two eyes are important and show two absolute conditions: first, that the degenerative process has invaded the two optic nerves to different degrees; and, second, that although the pathological disturbance has most probably involved each optic nerve uniformly in transverse section, yet upon account of the lower functional ability of the circummacular distribution in the ocular retinæ (dependent upon a lower grade of physical structure), visual expression of structural degeneration has been greater amongst the peripherally placed fibres, thus producing concentric contraction of the visual fields.

4. Motions of Iris.—Want of Argyll-Robertson phenomenon. The entire absence of "reflex-iridoplegia" in this case is interesting. The facts that the macular fibrils of the afferent path to the central nucleus are in excellent working condition and the efferent tract has been but slightly affected, combined with the assumption that the special centre (*i. e.*, the cerebral area just behind the space set apart for the centre governing the act of accommodation) has as yet escaped any detrimental disturbance, give very good answer for the reason of the non-appearance of this symptom.

5. *Extra-ocular Motion.*—Horizontal nystagmus in each eye. It is undoubtedly a *paretic* condition.

Conclusion.—Careful analyses of these various eye symptoms have drawn me to the conclusion that in this case we have to deal with ocular conditions which are related to some peculiar form of locomotor ataxia.

These cases, with certain exceptions, are decidedly like locomotor ataxia, but the ordinary form of this disease is very unusual in children. Hammond says it is met with between thirty and forty-five years of age. Eulenberg[1] in 149 cases found but one instance (female) under ten years of age. Erb,[2] out of eighty-six cases of his own, met with three instances between eleven and twenty years.

In a "critical digest of the so-called hereditary ataxia, first described by Freidreich," by Dr. J. A. Ormerod,[3] the writer has collected forty cases of this affection. I am indebted to this paper for much valuable information on the subject.

This author remarks of the disease that its most striking feature is its tendency to attack many members of the same family. Next, that it attacks in early life. "Friedreich stated that it coincided with commencing or developing puberty, the dates of his cases varying from æt. 13 to æt. 18, but other authorities have observed it still earlier. Thus of Rutimeyer's cases it began above the age of four years (one child indeed had never been able to walk straight); and in two of Hammond's cases it began at a similarly early age." The first symptom is almost invariably ataxia of the legs, then it gradually extends upwards, affecting the arms, head, and, finally, the speech. Nystagmus also occurs late in the disease. The absence of sensory symptoms is of great interest. In typical cases of locomotor ataxia the pains, as is well known, are a prominent symptom, especially in the early stages, and later on sensory disturbances: anæsthesia, paræsthesia, etc., frequently are present. In Friedreich's disease "pain is conspicuous by its absence." "Romberg's symptom"—*i. e.*, inability to stand with the eyes shut and the feet together, is not always present, but the knee phenomenon is always absent, spinal curvature is often present. Ormerod says a combination of lateral and angular curvature is frequent, but that lateral alone is more frequent than angular curvature alone. It is said to be a very early symptom. In my patient, Case II., there is marked lordosis. Indeed, so marked was this condition that on first seeing the case and observing a very stout condition of the calves of the legs in connection with the spinal curvature I suspected it might be a case of pseudo-hypertrophic paralysis.

Paralysis and atrophy come on later in the disease. Many of the cases recorded were under observation for a great number of years. One of Friedreich's was seen by him for thirty-one, and another for twenty-five years. As the disease progresses, the patient becomes utterly helpless from the degree of paralysis.

Post-mortem examinations were made in seven of the cases collected by Ormerod. The following is a *résumé* of the changes found:

"In several cases the cord and medulla were small in size, and this is certainly a fact of interest when we consider the hereditary character of the disease, for a cord congenitally imperfect may be the more prone to degeneration, and to degenerate at an early age. Advanced posterior spinal sclerosis was found in every post-mortem. The changes in the medulla were slight and apparently secondary to the spinal. So in Friedreich's opinion were those which he found in the nerve trunks; while in the cerebrum and cerebellum, no trace of chronic disease was found."

Ormerod says "he cannot adopt Hammond's suggestion that the lesion is primarily situated in the medulla or cerebellum. He thinks that as the sclerosis involves the entire length of the posterior columns, and appears to spread upwards much as in ordinary ataxia, we should class it as a systematic tract lesion, and not as a part of a disseminated sclerosis."

Hammond[1] believes that Friedreich's cases are not forms of ataxia at all, but are instances of disease of the medulla or cerebellum extending secondarily to the cord. Erb, on the other hand, accepts Friedrich's views, stating that "most cases of tabes dorsalis may be grouped under one of two types—*i. e.*, the classic variety of Duchenne, or that described by Friedreich."

In conclusion, we would recall the difference in the two forms of the disease. The typical variety begins with lightning pains, disorders of micturition, transient paralysis (especially oculo-motor), absence of pupillary reflex; the Argyll-Robertson symptom; visceral crises; and trophic disturbances in the joints and bones. All of these are absent in the form described by Friedreich, and in this latter variety the spread of the affection to the arms is more rapid, the spinal curvature, the disturbance of

[1] Quoted by Ross, Diseases of the Nervous System, vol. ii. p. 213.
[2] Ziemssen's Cyclopædia, vol. xiii. p. 524.
[3] Brain, April, 1884, p. 103.

[1] Journal of Mental and Nervous Diseases, 1882.

speech, and the nystagmus are peculiar to it. The early age at which it occurs and the family predisposition to the disease make up the other points of difference.

On the other hand, in both types there are the ataxia and incoördination beginning in the lower extremities, the absence of tendon reflexes, and "the Romberg symptom," and some of the eye lesions.

A HEAT CENTRE IN THE CEREBRUM. PRELIMINARY NOTE.

By ISAAC OTT, M.D.,
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It is nearly twenty years ago that Tescheschichin announced, as the result of experiments, that section of the medulla oblongata where it joined the pons caused an increase of temperature. He arrived at the conclusion that physiological experiment and clinical facts point to a moderation-centre in the brain. Some time ago I announced the existence of a heat centre in the vicinity of the corpora striata.[1] This fact has recently been confirmed by Messrs. Aronsohn and Sachs.[2] Lately I have attempted to ascertain more definitely the position of this centre. The experiments were made upon rabbits, not fastened down, in a room the temperature of which was about 75°. The temperature in the rectum was noted, the skull was trephined, and punctures made with a coarse needle through the cerebrum down to its base, and the increment of temperature noted. A rise of temperature usually ensued after injury to various parts of the cerebrum, but it disappeared in a few hours. If, however, it struck a certain point in the anterior inner portion of the optic thalamus, near the corpus striatum, then the rise was from three to four and a half degrees, and remained nearly at this height till next day. The cerebral cortex has not anything to do with it, as I have frequently removed the cortex in different places, and the rise was only transient. There is a possibility that at this point the injury calls vaso-motor influence into activity and causes an increase of temperature. To decide this point, calorimetric experiments are necessary. A few experiments made with D'Arsonval's calorimeter showed an increased heat production. More extended experiments will be necessary to decide this point.

MEDICAL PROGRESS.

DOUBLE OVARIOTOMY(?); CURE.—M. FERRIER reports a case of double ovariotomy remarkable on account of diverse opinions held by eminent diagnosticians as to the nature of the growth previous to operation. The patient, a woman aged forty-three years, had menstruated regularly since the age of fourteen, but at the time of her entrance into the hospital the menstrual flow which hitherto had been profuse, had become scanty. The patient was married at the age of twenty-one, had never borne children nor had a miscarriage. About twelve years previously she experienced pain in the hypogastric and left iliac regions, which was increased by walking, prolonged standing, or by any movement which affected the abdomen. Pressure produced a variable effect. Menstruation was without influence, and dorsal decubitus caused the pain to disappear completely. To the pain already described another was added, having its location in the umbilical region, and somewhat analogous to the pains of menstruation, though not coinciding with them as to time.

This pain lasted from forty-eight hours to five days, and appeared two or three times yearly. The abdomen in the meantime did not become enlarged, and though the pain attracted her attention to the abdomen, the woman was not aware of the existence of a tumor at the time, two years after the initial symptoms. M. Van Petegen was consulted, and recognizing ulceration of the cervix, treated the patient without affording her relief, and having made further examination recognized the tumor. The woman next consulted Prof. Duplay, of Paris, who recognizing the tumor, counselled immediate operation. M. Péan, consulted a few days later, pronounced the tumor to be fibro-cystic, and did not consider operation necessary, at least at once. Four or five years later M. Parise, of Lille, diagnosticated multiple fibro-cystic tumor, and pronounced operation impossible. Soon after, at Strasburg, M. Kœberlé diagnosticated a fibro-cystic tumor, and refused to operate.

The woman finally entered the Hôpital Bichat, January 13, 1884, for the purpose of undergoing operation. Examination showed the belly to be asymmetrical. The circumference at the umbilicus was 39.6 inches, The distance from the umbilicus to the ensiform cartilage was 7.2 inches, and from the os pubis to the umbilicus, 6 inches.

Palpation revealed the presence of two tumors. One was situated in the median line in the hypogastric region, hard, non-fluctuating, and about the size of an apple. The other occupied the whole of the right iliac fossa, and throughout its whole extent, fluctuation was plain.

January 19, puncture was made to the right of the umbilicus at a level with the fluctuating tumor, and a dark-brown fluid full of crystals of cholesterine obtained.

January 22, operation was performed by M. Ferrier, assisted by MM. Périer, J. Championniére and Berger. A median incision was made extending from the umbilicus nearly to the pubes. The peritoneum was found to be vascular and thickened, necessitating the use of the hæmostatic forceps, and containing also a small quantity of ascitic fluid. The right cystic growth was covered by the epiploön which was adherent to it and to the abdominal wall. Below, the subpubic tumors were filled with cysts containing a clear fluid which greatly distended them. The epiploön was gradually detached from the cysts and from the abdominal wall, without much loss of blood. Numerous adhesions existed between the cystic mass and the abdominal wall, and, moreover, on account of the ascites and the long duration of the disease, the adhesions appeared macerated, infiltrated, and of a darkish color. Below and to the right there were extensive adhesions between the cyst and cæcum, which when broken up necessitated numerous ligatures. The right cyst was punctured, and contained about seven pints of a reddish colored liquid

[1] Journal of Nervous and Mental Diseases, vol. xi., April, 1884.
[2] Deutsche medicinische Wochenschrift, December, 1884.

full of cholesterine crystals. The abdominal incision was now extended toward the umbilicus. The cyst was found to be connected below with the suprapubic polycystic mass, whose pedicle was ligated with two catgut ligatures. By this procedure the polycystic mass was disengaged and gradually removed from the pelvis, and was thus found to be composed of cysts united to both ovaries, and united below with the uterus. To the left, a second pedicle was discovered, which seemed to correspond to the left ovary. Its section permitted the right uterine pedicle to be reached, and to be tied with a silk ligature. Two vegetative masses were discovered behind the right uterine pedicle and upon the posterior wall of the uterus. These were torn away and removed, and a catgut ligature applied to each of the bleeding points. The toilet of the peritoneum was carefully completed, and the abdominal incision closed with eight deep, and one superficial suture. Strict antiseptic precautions were observed. The operation occupied fifty-five minutes. The patient rallied from the operation, and made a good recovery, and left the hospital, cured, February 23, 1884. Though the tumors appeared to be ovarian in their origin, the subsequent reëstablishment of the menstrual function renders the diagnosis doubtful. —*L' Union Médicale*, June 4, 1885.

NEPHROTOMY.—PROFESSOR FRANZALINI, on May 23, 1885, removed the right kidney of a woman in whom the organ was the seat of multiple foci of tuberculous degeneration. On account of the vast size of the tumor, which is said to have been as large as the head of a seven months' fœtus, and the uncertainty of the diagnosis, the organ was removed by abdominal section. The operation was performed in one hour. The patient is in good condition, and her recovery is confidently expected.—*Gazzetta Medica di Torino*, June 5, 1885.

STIMULATION OF THE VAGUS IN CHLOROFORM NARCOSIS.—DR. EMIL AMRUS has discovered the following interesting facts in reference to stimulation of the vagus in animals anæsthetized by chloroform:

If the peripheral end of the nerve be stimulated with a mild faradic current in an animal so anæsthetized—

1. The duration of the heart's pause is disproportionately long as compared with the intensity of the current.

2. In some instances, in which a relatively weak current is applied, the duration of the heart pause attains a maximum, and, if the strength of the current be intensified or diminished, the duration of the cardiac pause decreases.

3. If the duration of the heart pause is prolonged by continued stimulation through twenty-five or thirty seconds, cessation of respiration also occurs.—*Allgemeine Wien. med. Zeitung*, May 12, 1885.

ALBUMINATE OF MERCURY IN THE TREATMENT OF SYPHILIS.—DR. MAX BOCKHART strongly recommends albuminate of mercury in the treatment of syphilis. After repeated trial he has found it to be efficacious and well borne. Macular exanthems disappear after from three to five injections, and other syphilitic manifestations appear to yield equally well to the remedy. Gummata also disappear with great rapidity by use of the drug, which seems even superior to the peptonate of mercury. Local inflammation never occurs, and, as a result of its hypodermatic use, and though injected into the back, nates, and thighs, induration and abscess never occur. Generally, also, the hypodermatic use of the drug is entirely painless. A solution of albuminate of mercury, of a strength of 1½ per cent., is recommended for general use in injections made daily or every two days. The solution should be kept in a cool place and in colored bottles.—*Monatshefte für Prakt. Dermatologie*, May, 1885.

FRACTURE OF THE OLECRANON.—At a meeting of the Academy of Medicine, of Genoa, held May 4, 1885, Professor Caselli presented a young man who had come to his clinic with an ununited fracture of the olecranon, and on account of which the power of extension in the arm was altogether lost. Professor Caselli removed, by a small incision, the loose fragments of bone and the callus thrown out at the seat of fracture, and sutured the fragments of the bone with a strong metallic wire. Having thus approximated the fragments, he twisted the two ends of the wire, made an incision in the periosteum, and slightly excavated the lower fragment beneath the elevated periosteum, and into the small cavity thus formed, introduced the twisted ends of the suture, after which he replaced the periosteum. Reunion took place by first intention, and in eighteen days the patient was completely cured. The articulation at the elbow was restored to a normal condition, and all movements of the arm are naturally performed. The wire suture remains encysted and causes no discomfort or unfavorable symptoms.—*Gazzetta degli Ospitali*, May 24, 1885.

PULMONARY CONGESTION AND ITS PATHOGENY.—DR. L. QUEGRAT, in an exhaustive study of pulmonary congestion, distinguishes two forms of the pathological conditions—the idiopathic and secondary.

The idiopathic form occurs: 1. As a result of pneumonia. 2. As a result of pleurisy.

Secondary congestive conditions may be (*a*) pulmonary, (*b*) pleural, (*c*) cardiac, (*d*) neuropathic, (*e*) diathesic, (*f*) infectious, (*g*) dyscrasic, (*h*) dependent on the existence of a vacuum.

M. Quegrat considers the pathogeny of pulmonary congestion to be very variable, and but little understood. Thus, in secondary congestion, the condition is at one time caused by an impediment to the return circulation, a mitral insufficiency, for example, which causes the gradual engorgement of the lungs. At other times it is not the impediment offered to the return, but a too abundant afflux of the blood, arising from a local irritation, which causes the congestion. This condition is frequently seen in the region of tuberculous foci.

In a third category may be grouped cases of congestion originating from functional defect of the pulmonary vasomotors, as is seen in the unilateral congestion consecutive to cerebral hemorrhage, and located on the paralyzed side; and also in those reflex congestions consecutive to attacks of bilious colic, or to strangulated hernia. The condition under consideration is thus plainly seen to be due to:

1. Congestion due to obstruction to the circulation of the blood.

2. Congestion due to local irritation.

3. Neuropathic congestion.

It is evident, however, that, though these three groups only are at present actually established, in many instances the pathological process is undiscovered. Thus, in rheumatism and arthritis, the causes which produce congestion and the rôles assumed by the nervous system, the fluid of the body, or infectious agents, are questions which are still unsolved.

As to the condition of the so-called idiopathic congestion, sometimes attributed to cold, or considered the manifestation of a catarrhal condition, or as being a congestive fever of the lungs, nothing positive is known. —*Revue de Médécine*, January 10, 1885.

THE INFLUENCE OF SYPHILIS UPON INFANTILE MORTALITY.—At a meeting of the French Academy of Medicine, held March 4, 1885, DR. ALFRED FOURNIER concluded an address upon the reduced increase of the population of France, with the following observations;

1. Syphilis constitutes an active and powerful cause of infantile mortality; the average deaths due to this cause may be estimated at 68 per 100, of children descended from parents suffering with the disease.

2. The remedies by which this special cause of infant mortality may be diminished are of two classes: 1. Methodical and sufficiently prolonged medical treatment, and prohibition of premature union of parties suffering from syphilis. 2. Measures relating to public hygiene (the general prophylaxis of syphilis).

The first are in the hands of the physician, and by using them rigorously the mortality due to infantile syphilis may be much decreased. Measures of the second order, Dr. Fournier held, are in the hands of the health committees and general government, and these where their resources are inefficient should be improved.—*Annales de Dermatologie et de Syphiligraphie*, May 25, 1885.

TREATMENT OF DIPHTHERIA.—DR. LUNIN, in *Wratsch*, 1885, Nos. 2–4, gives a *résumé* of some of the methods commonly approved in the treatment of diphtheria:

1. Treatment with corrosive sublimate. The mucous membrane of the fauces is painted with a 1 per cent. solution and a gargle of a 0.02 per cent. solution is used. But as the latter procedure is too precarious in children, the mouth and throat should be hourly washed with the solution, with the aid of the Rauchfuss spatula, so that it may be certain that the application comes in contact with the entire posterior walls of the throat.

2. Treatment with the liquor ferri sesquichloridi. This remedy may be administered in doses varying with the age of the patient. From one drop every two hours to two drops every half hour, and in daily doses of from 15 to 120 grains. In addition, the mouth and fauces should be hourly cleansed with a 3 per cent. solution of boric acid.

3. Treatment with quinine. This remedy may be used, according to Serpert's prescription, in a strength as follows:

℞.—Quiniæ	gr. lxxv.
Aquæ,	
Alcoholis	āā f℥iss.

The mucous membrane of the throat and palate to be painted every two hours. In addition, the throat should be gargled hourly with a solution of quinine as below:

℞.—Quiniæ	1 part.
Water	500 parts.
Alcohol	50 parts.

4. Treatment with resorcin. Andeer recommends in mild cases of the disease the simple cauterization of the parts with resorcin crystals, or with a concentrated vaselin and resorcin ointment. In moderately serious cases, repetition of the above treatment is recommended, while in severe cases the local and internal use of the drug is recommended.

Cauterization is to be performed by the physician personally; for painting the throat a ten per cent. solution is recommended, and a one per cent. solution should be used for washing the parts; applied at first every two hours and afterwards every hour. The remedy thus far has not been administered internally, though in frequent painting of the throat it is certainly swallowed in greater or less quantity.

5. Treatment with bromine according to the prescription of Von Hiller, who recommends the following formula:

℞.—Bromine, pure,	
Potass. brom. . . .	āā gr. 7½–15.
Aquæ	f℥vj.

With which solution the throat should be washed every two or three hours. Contemporaneously inhalation of a 0.2 to 0.4 per cent. solution of bromine should be practised every half hour or hour for a period of five minutes.

6. Turpentine may be used as recommended by Von Bosse. The patient should twice daily receive a teaspoonful or an hourly dose of ten drops of the drug. In addition, the throat should be washed with a three per cent. solution of borax. If vomiting or diarrhœa ensue, the administration of turpentine should be discontinued.

Following these several methods of treatment, tables are appended, showing the apparent success or failure of each remedy.— *Centralblatt für klin. Med.*, May 2, 1885.

THE EMPLOYMENT OF CURARE IN THE TREATMENT OF EPILEPSY.—DRS. BOURNEVILLE and P. BRICON, in a therapeutic study on the use of curare in epilepsy, based upon the clinical observations of thirty-three cases of the disease in which the drug was employed, have reached the following conclusions:

The results attained are entirely different from those recorded by some authors. Certainly, in twenty-one patients affected with various forms of epilepsy, some adults, and some children, submitted to subcutaneous injections of curare during three, six, and even a greater number of months, but a single case was found in which noticeable benefit was received from the treatment. One other was slightly benefited. In a third, though the number of the attacks was not diminished, their violence was abated, a common result in the treatment of epilepsy. In summing up the results obtained the writers find that they are but little encouraging, and consider that curare should be dropped from the list of drugs worthy of trial in the treatment of epilepsy.—*Archives de Neurologie*, May, 1885.

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SATURDAY, JULY 4, 1885.

THE INTERNATIONAL MEDICAL CONGRESS

THE new Committee of Organization of the International Medical Congress, met in Chicago last week and the result of its work is greatly to be regretted. The original committee, appointed for that purpose in 1884, proceeded to organize for the International Medical Congress in 1887, in accordance with the rules and customs of previous Congresses. Upon its plan the medical profession of the United States was to be represented as a national body, including all regularly organized medical societies, general or special. The American Medical Association, however, at its late meeting in New Orleans, rejected this arrangement, legislated out of existence the thirty-four members added by the authority given the original committee at the time of its appointment, and added thirty-eight new members to the original committee of eight, in order to put the Congress exclusively under the charge of the Association, with the States and Territories as the unit of representation. The new committee seems to have carried out its instructions pretty thoroughly, although there are still perhaps some districts not sufficiently represented in the appointments made.

It was decided that the American members of the Congress must be members of the American Medical Association, or of societies affiliated with it, on the usual basis of representation of one to ten; in other words, the Congress is to be a meeting of the American Medical Association with a rather larger number than usual of invited guests.

In his remarks before the Committee, Dr. Billings gave the views of the original Committee as follows:

"The invitation was purposely worded as coming from the Medical Profession of the United States, and not from the Association only, in order that all regular physicians in the country, and in particular the various important societies devoted to special branches of medicine, such as the Gynæcological, Ophthalmological, Laryngological, etc., and also the societies in our large cities which are specially devoted to scientific work, such as the Academy of Medicine of New York, the College of Physicians of Philadelphia, etc., should feel that they were included and must share the responsibility of providing a proper reception for the Congress.

"The Congress is a purely scientific body, taking no cognizance of questions of Medical Ethics or police. It accepted the invitation on the supposition that its rule in this respect would not be interfered with, and that those who would come to us in 1887, would meet our various eminent specialists whom they know either personally or by reputation. To make this impossible, as the newly organized Committee proposes to do, is a discourtesy to the Congress.

"So long as the Old Code men in New York meet the so-called New Code men as freely in consultations and in scientific societies as they now do, there is no sufficient reason for refusing to meet them in a purely scientific body like the International Medical Congress."

This remonstrance had not the least effect in modifying the determination of the Committee.

It seems clear that the meeting in 1887 is to be an International Congress in name only and that it is really to be a very large meeting of the American Medical Association, and that the vastly larger body of the medical profession of the United States is to be excluded. What the result will be it is premature as yet to conjecture; but we fear that, under the circumstances, a number of distinguished men, both at home and abroad, whom it was hoped would be present and take part in the work, will not attend.

The management of the matter has passed into the hands of a very different set of men from those who had charge of it at the outset, and the question whether any of the original Committee of eight, or of those who were added to them to form the enlarged Committee which did the work which the new Committee have just condemned and set aside, should consent to accept office under the new *règime*, demands serious consideration. From present appearances it looks as if there would be but little, if any, difference of opinion upon this point.

As we go to press we learn that the dissatisfaction with the work of the new committee is so great that the members of the medical profession of Philadelphia who were concerned in the organization of the Congress, have held a meeting and have unanimously decided to decline to hold office under the new

organization. As will be seen by reference to the resolutions passed, this list includes the names of the Chairmen of the Sections of Medicine, Surgery, Anatomy, and Therapeutics; and of the new Secretary General. With the probability of similar action being taken elsewhere, the present outlook is not encouraging.

We are also informed that Drs. Billings, Brown, Johnston, and Hays, of the original committee of seven, have resigned from the enlarged Committee.

INDIRECT FRACTURES OF THE CRANIUM.

THE history of fractures of the cranium occurring at a point some distance from that which has received a blow is as old as the history of medicine itself. Such fractures have been described by Hippocrates, Celsus, and Galen, as well as by almost all the writers of consequence who followed them. Under various names they have been recognized, and in various ways they have been accounted for, until it is no light work to follow the devious course which the current theory of their mechanism has pursued, since men's thoughts were first turned to this phase of the subject.

The earliest attempt to explain their mode of production was the fanciful one implied in the name *resonantia*, by which no more was signified than that in some way a fracture at a point opposite to that of a blow corresponded to the echo which was produced by a sound. The ancient term *contrafissura*—which is not convertible, as many have seemed to think, into the modern term *contre-coup*, or counterstroke, since the one signifies an effect, and the other a cause—throws no light whatever on the subject. But, about two hundred years ago, Boerhaave, and after him his commentator, Van Swieten, advanced a theory in regard to the mechanism of these fractures which, while incapable of the exact application which they gave it, is very suggestive as to some other phenomena of cerebral injury. They attributed fractures at a part of the skull opposite to that which had been struck, to the impact against the opposite wall of a column of the contents of the skull, which, from the amount of fluid the contents contain, they believed would have the physical properties of a column of water, one of the most incompressible of substances.

Then, a little over a hundred years ago, the attention of French surgeons was directed to what had come to be known under the general term *contre-coup*, by the offer, by the Royal Academy of Surgery, of a prize for the best essay on this subject. The result was a series of essays in which these remote fractures were generally explained upon the basis of the physical properties of the cranial bones, and principally upon that of the laws of the propagation of vibrations in solid substances. Of the writers of this time, Chopart attached considerable weight to the consideration that the skull may be considered as a solid box, the walls of which, under the influence of a blow, will be driven together in the direction of the force applied, and will be driven apart in the diameter which is at right angles to this one. Sir Charles Bell, in the beginning of this century, called attention to this same fact, and compared the disintegration which takes place in certain parts of the skull to that which may take place in an arch, the base of which is forced asunder by depression of the top. In 1844, Aran published, in the *Archives Générales de Médecine*, a paper on this subject in which he propounded a theory which is often spoken of as Aran's law, namely, that fractures of the base always begin in the vault, and reach the base by the shortest route, while lying wholly within a zone corresponding to one of the three great fossæ at the base.

In England, about this time, Mr. Hilton accepted the vibration theory of indirect fractures of the skull, and thought they reached the base under the influence of the architectural construction of the cranium, at the same time propounding the theory that vibrations which travel along certain lines to certain points are there lost by the interposition of soft structures, or by their discharge from the extremities of certain processes upon or into the cerebro-spinal fluid. Next, in Germany, the idea of the elasticity of the cranium as a whole began to attract great attention. In 1854, Bruns, of Tübingen, made some experiments which established what Chopart and Sir Charles Bell had assumed on theoretical grounds, namely, that the skull, under the influence of a blow, changes its shape. Other German investigators added confirmatory testimony, drawn from analysis of specimens of actual fractures. Then, in France, Félizet made an elaborate study of the subject of fractures of the cranium, and carried out a number of ingenious experiments, from which he concluded that almost all fractures of the skull start in the vault and travel toward the base, in lines which are determined by the restraining influence of several buttress-like portions of the bones—the nasal and occipital protuberances, the petrous bones, and the orbito-sphenoid prominences. Futhermore, he considered the basilar portion of the occipital bone with the two antero-lateral portions of the wall of the foramen magnum as a *pièce de résistance* which always remained intact.

After Félizet, the study of these fractures was taken up by Baum, who demonstrated by experiment the untenability of the pure vibration theory. Then Bergmann took it up, and advocated what may be called the elasticity theory, comparing indirect fractures of the skull to those which take place in the wall of the thorax, and to those of the eyeball

under pressure, as shown by Arlt. Then came the experimental investigations of Messerer and Hermann, which added considerably to the strength of the same theory. Next, von Wahl, resting his opinions partly on the work of his predecessors and partly on experiments and observations of his own, adopted and advocated the theory that fractures of the skull, with the exception of direct fractures, are caused by its being burst by expansion of the part which is equatorial to the axis of the force applied. After this Messerer returned to the study of the subject, and made a large number of experiments, the results of which completely refute the essential parts of the theories of Aran and of Félizet, and seem to confirm the theory which is now known in Germany as the *Berstungs Theorie* (bursting theory). Finally GREDER, in a paper which has prompted this article, "Experimentelle Untersuchungen über Schädelbasisbrüche," published in the *Deutsche Zeitschrift für Chirurgie*, March 9, 1885, has made still another study of indirect fractures of the skull, which seems to leave little doubt that these are, in the great majority of cases, due to the elastic properties of the cranium as a whole.

Of course, it will be understood that no intelligent student will fail to recognize—what was thoroughly recognized centuries ago—that fractures of the base of the skull are also caused by its being crushed in by force applied by the spinal column; in which case they are of the most direct sort imaginable. But a careful study of the valuable work in elucidating the mechanism of fractures of the skull, which has been done in Germany during the past five years can hardly fail to convince an unprejudiced student of the correctness of the theory which is advocated by Greder in the paper to which reference has been made. His experiments furnish a striking confirmation of the correctness of the bursting theory, which had been arrived at by both inductive and deductive reasoning. He tested it by applying regulated blows to skulls which were intact, and some of them still connected with the trunk, and he found that the fractures he produced lay in the lines which, according to the bursting theory, they should have occupied. His conclusions are: that the bursting theory affords a satisfactory explanation of indirect fractures of the base; that the fractures are parallel to the direction of the force which causes them; and that the extension of the fractures—or, to speak more accurately, fissures—is influenced by so many intercurrent conditions peculiar to each skull that it can, at best, be only suspected from the intensity of the violence which causes them. As to the point at which fractures of this sort start, he holds that it does not always lie in the point of impact, nor always in the equatorial line, but at that point in which the proportion of the resistance to the disruptive force is at a minimum. This, he thinks, will be found most frequently at the equator or near it.

We commend these views to those of our readers who are interested in the study of the mechanism of fractures of the cranium, and feel that it is especially important to call attention to them, and to those of which they form the natural sequel, since it would appear, from what is taught in most surgical works in the English language, that these very recent investigations of the Germans have not yet been fully appreciated by our own workers and writers. There may be a flaw in them; but, as they now stand, they seem to furnish a very satisfactory explanation of indirect fractures of the skull, and to present the convincing spectacle of a theory which, while arrived at partly by deduction, has been abundantly established by the test of experimentation.

EXPLORATORY INCISIONS IN THE DIAGNOSIS OF ABDOMINAL TUMORS.

TERILLON in the *Revue Medico-Chirurgicale des Maladies des Femmes* for May, in a paper read before the Society of Surgery of Paris, considers the subject of exploratory incisions for the diagnosis of abdominal tumors. He has collected 179 cases in which such incision was made: of these 39 died, and 140 recovered; and he, therefore, regards the "cures" as 79 per cent. But it is hardly just to consider exploration as a curative agency—it can only be said that exploratory incision was not fatal in 79 per cent. One interesting fact shown by Terillon's statistics is that an exploratory incision in malignant disease is very much more liable to be followed by death than if the disease be non-malignant.

Terillon observes that an exploratory incision ought to have one end, to make the diagnosis clear for the performance of a radical operation. It is for the surgeon who undertakes it the first step in a laparotomy, that has behind it an unknown, which must be discovered before passing further.

The exploratory operations collected by Terillon have been followed by a far higher rate of mortality than have those in the hands of Tait, Knowsley Thornton, Keith, Billroth, and other experienced operators.

PRIMARY CANCER OF THE VAGINA.

As is well known, primary cancer of the vagina is a rare affection, while it is very common for cancer involving the vaginal portion of the neck of the womb to extend to the vagina. In this extension of the disease the anterior vaginal wall is usually first affected, while the primary disease in most cases attacks the posterior wall. In the last fact we have a remarkable contrast between primary cancer and

cysts of the vagina, the latter more frequently affecting the anterior wall.

The *Centralblatt für Gynäkologie* of April 18th, contains reports of two cases of primary cancer of the vagina, one by GRAMMATIKATI, the other by MENZEL. The first patient was 27 years old, and the cancer was of the anterior wall; the second patient was 55 years old, and the disease was seated in the posterior wall. Each case was operated on successfully.

According to Grammatikati, there have been but 38 cases of primary cancer of the vagina published, to wit, 6 by West, 24 by Küstner, 3 by Schrœder, 1 by Grünewald, and 4 by Bruckner. These 2 cases added make the entire number 40. McClintock has remarked, that he has seen several cases of cancer of the vagina; but in all these cases the disease seemed to have extended from the vulva, or from the uterus. Yet it is quite possible that some of the cases where the uterus and vagina were both affected by the disease, and where it was supposed to have extended from the former to the latter, the reverse was the fact, the affection of the vagina being primary, that of the uterus secondary.

THE MOVEMENTS OF THE STOMACH.

ROSSBACH, of Jena, has been making some experiments, with a view to a better understanding of the movements of the stomach, derangements of which he believes to be at the bottom of many digestive troubles. The experiments were made upon dogs under the influence of profound morphia narcosis, and the results presented to the recent Congress für innere Medicine at Wiesbaden, and published in the *Deutsche med. Wochenschrift* for April 30th.

He has ascertained that as soon as the stomach is filled with food the peristaltic movements begin, at first feebly, increase gradually, and continue from four to eight hours. They occur only in the parts adjacent to the pylorus. The empty stomach is either entirely without motion, or exhibits only occasional and very feeble movements. The pylorus is closed during the entire period of digestion, and the emptying of the stomach begins suddenly when gastric digestion is, for the most part, accomplished. The duodenum is quite at rest during the entire period of gastric digestion.

SOCIETY PROCEEDINGS.

AMERICAN NEUROLOGICAL ASSOCIATION.

Eleventh Annual Meeting, held in the Hall of the Academy of Medicine, New York, June 17, 18, and 19, 1885.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, JUNE 17TH.—FIRST DAY.

AFTERNOON SESSION.

BUT a slight attendance of members was present when the meeting was called to order at 3.10 P.M. by the retiring President, DR. ISAAC OTT, of Easton, Pa. Dr. Ott made a brief address, alluding to the rapid strides made by neurological science, and the increase of knowledge concerning the physiology of the nervous system. If he might be permitted to allude to a subject upon which he had done some work, he would refer to

THE RELATION BETWEEN THE NERVOUS SYSTEM AND THE TEMPERATURE OF THE BODY.

The researches of various observers lead to the conclusion that the body temperature is controlled by the nervous system. The location of the centres is a subject of interest not only to physiologists, but to practitioners. Tscheschichin believed that a moderating centre existed in the brain. Eulenberg discovered a centre at the *sulcus cruciatus* which can cause a great rise in temperature, though he has lately attributed this action to a vaso-motor disturbance. In 1884 Dr. Ott had published a paper showing that centres having a relation to heat are located near the *corpora striata*. Within recent months he has attempted to map out these centres more definitely, and he finds them at the anterior inner part of the *optic thalami*. They must act either by increasing the production or diminishing the dissipation of heat. From his experiments, briefly described, Dr. Ott showed that there was an increased production, that the increment of heat was not due to vaso-motor deflections, and that the cerebral cortex was not the seat of the action.

Dr. Ott then introduced the Vice-President, DR. LEONARD WEBER, of New York, who took the Chair.

In accordance with the recommendations of the Council, Dr. Mason was elected as an

ASSOCIATE MEMBER,

his resignation as an active member being accepted.

Dr. Philip Zenner, of Cincinnati, and Dr. M. Allen Starr, of New York, were elected

ACTIVE MEMBERS.

A letter was read from THE PRESIDENT, DR. BURT G. WILDER, of Ithaca, announcing his inability to be present at the first day's session, and nominating DR. MILLS, of Philadelphia, as President for 1886.

The following nominations were made for

OFFICERS FOR 1886:

President.—Dr. Charles K. Mills, of Philadelphia.

Vice-President.—Dr. V. P. Gibney, of New York.

Secretary and Treasurer.—Dr. R. W. Amidon, of New York.

Councillors.—Drs. George W. Jacoby and E. C. Seguin, of New York.

The nominees were unanimously elected.

A proposed amendment to the Constitution, changing the

DATE OF MEETING

to the first week of May, elicited considerable discussion, and its further consideration was postponed to the afternoon of the next day.

An amendment providing that all business not of a scientific nature should be transacted in executive session after the conclusion of the scientific work, was adopted.

In the absence of Dr. Mills, his paper on *The Brain of a Delusional Monomaniac who Killed Several Per-*

sons, was read by title, and ordered to be published in the *Transactions*.

DR. A. D. ROCKWELL, of New York, reported

A CASE OF CHRONIC MYELITIS; RECOVERY.

He said that recovery from chronic myelitis supervening upon acute myelitis presenting marked symptoms, was so rare that a case purporting to be of this nature should be thoroughly sifted. He read the history of a case seen in consultation with Dr. Farrington. The patient was a girl of sixteen years, and the symptoms developed on her return from an excursion to the seashore, during which she had felt very much depressed, and for a great part of the day had sat upon a rock near the water, possibly becoming wetted and chilled. She suffered great pain, the lower limbs were completely paralyzed, and there was incontinence of urine and of feces. After six weeks a severe and intractable bedsore developed over the last lumbar vertebræ. In the early days of the attack she was restless and sleepless, morphine only aggravating the distress. After two weeks of persistent insomnia natural sleep returned. For these two weeks she was nourished with milk and champagne, as the stomach rejected all other food.

Dr. Rockwell saw her about three months from the beginning of the disease, after the acute symptoms had subsided. Electro-muscular contractility in the lower limbs was completely abolished. There was diminished electro-cutaneous sensibility, and sensation to contact was perverted. The sphincters were completely paralyzed. A highly unfavorable prognosis was given, but the father demanded that an effort should be made to improve his child's condition. The faradic current had been used previous to Dr. Rockwell's connection with the case, but of course without result. He applied the galvanic current to the spine and to the paralyzed muscles, using 30 Volts, and making the applications every other day. At first the only evidence of good was the healing of the bedsore. At the end of the fourth week, faint muscular contractions were noted, and after two weeks these had increased sufficiently to permit accurate determination of the reactions, which were the characteristic reactions of degeneration. Anodal closing contraction was greater than cathodal closing contraction. Rapid interruptions of the galvanic current failed to elicit any response. After two months electrical reaction was normal, the bedsore healed, and the paralysis of the sphincters was overcome. At the end of the fourth month the only trouble remaining was weakness of the flexors of the right leg.

At first this was a case of acute myelitis, afterwards, whatever the exact conditions of inflammation, proliferation of connective tissue, etc., there was evidently a tendency to degeneration and softening. The whole transverse area was involved.

Pathologically the value of the case is negative rather than affirmative; the damage had not progressed beyond reparation. Therapeutically it encourages us to persist in treatment. Four physicians, including the reader of the paper had pronounced the case hopeless, but the father insisted on every effort possible being made to secure recovery. In this connection Dr. Rockwell alluded to a case of infantile paralysis in which some years ago he had given the same unfavorable prognosis, but the mother clung to the faint shadow of a hope, until after four months' treatment approximate recovery ensued.

Dr. Rockwell then exhibited the patient whose history formed the topic of his paper.

DR. E. C. SEGUIN had been much interested in the paper. He was, however, not satisfied that this had been a case of transverse myelitis. It appeared rather to have been an anterior polio-myelitis, extending perhaps into the gray matter. It reminded him of several cases he had seen, in which the symptoms of anterior polio-myelitis were blurred by sphincter-paralysis, and diminution of sensibility. He understood that there had never been absolute anæsthesia as would have been the case in transverse myelitis. Hence, he did not consider that this case modified the unfavorable prognosis of transverse myelitis, a true case of which he had never seen recover. He had seen a case with symptoms almost as severe as this, in which recovery ensued after three or four years. There were pain, atrophy of the extremities, with partial paralysis of the sphincters. While the electrical applications undoubtedly assisted recovery in Dr. Rockwell's case, we must not forget that the time over which they extended was sufficient to permit spontaneous recovery.

DR. STARR inquired whether galvanism had been the sole treatment? Had there been applied a continuous current to the cord or an interrupted current to the muscles?

DR. BIRDSALL asked for a more explicit statement of the distribution of the paresis; and inquired as to the limitation of the sensory symptoms, and the facts concerning the skin reflexes and tendon reflexes. These are important points in diagnosis. There are conditions in which central transverse myelitis may occur with slight involvement of the lateral columns, and the sensory tracts of the posterior columns. From the symptoms stated, this does not appear to be a case of transverse myelitis, as there is no decided evidence of involvement of the lateral columns.

DR. ROCKWELL replied that no other treatment had been employed, that the current had been continuously applied to the spine, but in addition sharp and strong interruptions had been resorted to, in order to reawaken irritability by mechanical action. Applications were also made to the muscles. He had seen a great many cases of anterior polio-myelitis, and considered this typically transverse myelitis, except that there was not complete anæsthesia. All groups of muscles were affected alike. There was absolute loss of contractility in every muscle and every fibre. The sensory disturbances were slight and confined to the extremities. The patellar reflex was abolished in the beginning, but had now returned. In regard to ankle clonus, there was great agitation of the foot when strongly flexed.

DR. GIBNEY asked whether it is possible for the ankle clonus to persist when the patellar reflex is abolished?

DR. LANDON CARTER GRAY, of Brooklyn, said that it depends very much on what you call chronic myelitis whether or not recovery is to be regarded as remarkable; whether or not a case is to be pronounced hopeless on account of the symptoms remaining long after the period for spontaneous recovery appears to have passed. We do not know much of spinal pathology after all. We can diagnosticate anterior polio-myelitis,

or lesion of the columns of Burdach (locomotor ataxia), or of the lateral pyramidal columns. But researches of various observers show us that there are other columns with probably as distinct sets of symptoms, though their semeiology has not yet been elaborated. When we speak of myelitis we mean only that the disease does not involve one of the three known tracts, and may thus include, under one name, half a dozen distinct lesions, making it impossible to fix a limit to the period of spontaneous recovery. Dr. Gray had seen many cases last a long while, and finally recover; one case after a year. A case of lesion of the anterior horns had been quiescent for years. He gave an unfavorable prognosis and ordered faradism more as a placebo, to keep the patient coming to his clinic for purposes of demonstration, than in the hope of producing any good result. To his surprise, an improvement took place, that might be roughly characterized at fifty per centum. Thus, recovery is not so rare as Dr. Rockwell's experience would appear to have made him believe.

DR. ROCKWELL, in closing the discussion, said that the exact pathology of this interesting case cannot be decided. There appears to be a direct connection between the therapeutic measures and the recovery. It seemed impossible to him that after so many months of apparently progressive disease, spontaneous recovery could take place. More can be accomplished by persistent effort in cases of chronic myelitis and of infantile paralysis than has been the generally received opinion.

On motion of DR. AMIDON, Dr. M. A. Starr was invited to read his inaugural thesis.

DR. M. ALLEN STARR, of New York, exhibited specimens and read a description of

SOME RECENT METHODS OF STAINING NERVE TISSUES.

1. Weigert's hæmotoxylon method. This is the best for differentiating tissues. Sclerosed tissues do not take the stain, making it available for class demonstrations.

2. Weigert's acid fuchsin. This possesses no advantage; a combination of this and the hæmatoxylon gives good results.

3. Seguin's modification of the aniline blue stain. This is simple, and easily carried out, while inferior to Weigert's, as not permitting differentiation of the nucleus from the body of the cell; it stains sclerotic tissues prominently.

4. Sahli's method with methyl blue and acid fuchsin. Sahli claimed that it was possible to differentiate sensory and motor fibres by their different colorations, but to Dr. Starr this appeared to be an accident of time. Sahli had also described (5) a single stain with methyl blue.

6. Adamkiewicz's saffronine stain. Dr. Starr's results had been unsatisfactory. This method by selective action of the medullated structures renders it possible to map out certain regions in the fœtal brain, and had led to important discoveries.

Dr. Seguin explained the reasons that had led to the adoption of the method associated with his name. It permitted large transections to be handled and left over night in the stain. The ganglion cells and their processes come out well under the microscope, but its principal advantage was for demonstrations of gray and white matter, which are clearly differentiated. The reactions with pathological tissues are very satisfactory.

EVENING SESSION.

DR. GEORGE W. JACOBY, of New York, read a paper on

THE USE OF OSMIC ACID IN PERIPHERAL NEURALGIA.

The treatment of neuralgia by injection of a solution of perosmic acid in the neighborhood of the affected nerve was introduced by Neuber in 1883. He reported two cases, one of sciatica and one of trigeminal neuralgia, both cured after ten and twenty injections respectively. Eulenburg reports and tabulates twelve cases; of which three were cured, four more or less improved, five unaffected. The same observer records seven additional cases, of which four were cured. Reference was also made to the observations of Wölffler and Mercies. Dr. Jacoby made use of osmium tetroxide, OsO_4, known in this country as osmic acid. Perosmic acid, as it is called in foreign reports, is probably the same drug. He employs a one per cent. solution, of which one-half gramme to one gramme (5 mgr. to 1 cgr. of the drug) is injected into the connective tissue around the affected nerve as near as possible to the seat of pain. If the solution be exposed to the light for any length of time it becomes decomposed and discolored. Eulenberg says the discolored preparation may be still used, but in the reader's experience it is inactive. The solution should be recently prepared and dispensed in a colored vial; a small quantity only being prescribed at a time. Following the injection a severe stinging pain is felt, which lasts but a few seconds. Occasionally there are swelling and puffiness over the seat of puncture. In many cases a hard swelling lasted several days. There is no discoloration except where the needle enters the skin. The experiments of Franklin show the action of osmic acid thus used upon the living animal. There is an inflammation of the connective tissue and muscular structure immediately surrounding the nerve, and the nerve itself is blackened, osmic acid having the same action upon living nerve tissues as upon histological preparations. Dr. Jacoby reported eighteen cases, three of them in detail. Eight cases were cured, two improved, and eight unaffected. Of the eight cures five were cases of sciatica, all old ones. Of the eight unaffected, three were fresh cases and two were old. In one case of cervico-brachial neuralgia, treated with gratifying success, so far as the relief from pain was concerned, by injections over the musculo-spiral nerve, radial paralysis suddenly ensued. While it is true that an element of doubt existed, Dr. Jacoby attributed this to the injections. Arnozan calls attention to neuritis following injections of ether. In some of Franklin's experiments complete motor and sensory paralysis occurred in the domain of the nerves subjected to the treatment. Summing his experience, sciatica seemed the most amenable to this plan of treatment, and old cases afforded a better chance than fresh ones, contrary to the experience of Eulenberg. The pain following injection was almost unbearable in one case. This was opposed to the experience of European observers, who noted the absence of pain. Dr. Jacoby concluded:

1. That in osmic acid we have an agent serviceable in some cases of peripheral neuralgia.

2. That it is not an antineuralgic, and that its action is localized.

3. That it frequently fails where other agents succeed.

4. That it is dangerous to implicate a motor nerve in the injection.

On invitation, DR. SACHS, of New York, who had been in Berlin during the progress of Eulenberg's experiments, said that the latter's experience had been only partially satisfactory. He had gained the impression that the treatment is unreliable in most cases. The only good results he had seen were in old cases, principally of sciatica. In Berlin no pain followed the injections. In New York they were very painful. This might be due to the difference in the preparation employed. The injection of osmic acid is worth a trial in obstinate neuralgias after other methods have failed.

DR. SEGUIN said that he had not used osmic acid, but had had some experience in other methods coming under the same general plan of treatment, namely, that of deep-seated irritation by hypodermatic injections. This method was first published by Louton in 1864. Louton used various agents, principally recommending silver nitrate. Dr. Seguin treated one case in 1865, and in one in 1873 or 1874 by Louton's method, both successfully. In both abscesses occurred, one being very troublesome. Some years ago he published an account of some cases of malarial neuralgias treated by deep injections of quinine. There may have been some antimalarial virtue in the drug employed, but he believed the local irritation the principal factor in the result. Quite a variety of substances may be employed, and possibly less irritating agents may give good results. Numbness and paralysis may ensue from deep injections over nerve trunks, as in the case related by Dr. Jacoby. Two cases of damage to sensation, were known to Dr. Seguin, one occurring in his own practice and one in that of a friend. Both were trigeminal neuralgia, and were treated by deep injections of chloroform, as recommended by Bartholow. The injection was made too near the infraorbital foramen and persistent anæsthesia of the upper lip resulted. He had never seen motor impairment, but no doubt it could occur.

DR. JACOBY, in reply, said that he did not believe that counter-irritation was the sole factor in the cure by osmic acid. Eulenberg claimed that the drug was unirritating. Some change in the nerve took place, as demonstrated by the discoloration. Abscess had not occurred in any of his cases, nor in those of others. He would not recommend the indiscriminate employment of osmic acid, but he thought it well to know of the method, and to resort to it in cases similar to those reported to have been benefited.

DR. SEGUIN called the attention of members to the fact that Ranvier has successfully used osmic acid on living animals to demonstrate nerve filaments and fat cells.

DR. STARR exhibited some large sections stained by Weigert's method.

THURSDAY, JUNE 11TH.—SECOND DAY.

AFTERNOON SESSION.

THE PRESIDENT, DR. B. G. WILDER, of Ithaca, occupied the Chair.

DR. V. B. GIBNEY, of New York, reported

TWO CASES OF SPINA BIFIDA, CURED, ONE FOLLOWED BY HYDROCEPHALUS.

Excision of the sac is limited to a small number of cases. In ninety-five per cent. the sac contains portion of the cord and some portion of the spinal nerves as well. The method he recommended was aspiration followed by the injection of iodo-glycerine, also called Morton's fluid, which consists of potassium iodide half a drachm, iodine ten grains, glycerine one ounce. Both of his cases were successful. In one which died subsequently of hydrocephalus, the autopsy showed obliteration of the tumor. In the other, death occurred subsequently from cholera infantum, and he was unable to obtain an autopsy.

DR. L. C. GRAY, of Brooklyn, read a paper on

THE USE OF STRYCHNINE IN NERVOUS DISEASES.

Dr. Jewell in 1880 recommended the use of large doses of strychnine, in some cases up to one-tenth of a grain, in the treatment of myelitis. Dr. Gray referred to the uncertainty of diagnosis and ignorance of pathology in any affection of the spinal cord, outside of the three known lesions, of anterior polio-myelitis, disease of the columns of Burdach (locomotor ataxia), or of the lateral pyramidal columns. Other equally well-defined columns exist, with probably equally distinct symptoms. Dr. Jewell had overlooked these distinctions. Dr. Gray had made trial of strychnine for several years, though he had always been afraid to use the large doses advocated by Dr. Jewell. In two acute cases it was so badly borne, that he had not used it again in acute cases. In two subacute cases there had been sudden onset of alarming symptoms, in one apparently from cumulative effects, and for three days the case had continued to be a cause of great trouble and anxiety. In some more chronic forms of disease he had had greater success.

A case of general myelitis of traumatic origin had been treated at first with ergot and galvanism, afterwards with belladonna without result. Strychnine was given in doses of gr. $\frac{1}{30}$, increased to $\frac{1}{10}$, three times a day, galvanism being continued. The patient, who had paralysis of the lower limbs, soon walked with the aid of two canes, then with one cane, finally without a cane. Vesical paralysis also was overcome. Great improvement ensued in another case in which the paralytic symptoms followed miscarriage. In five cases of progressive muscular atrophy strychnine was given in doses gradually increased to gr. $\frac{1}{15}$ three times a day. The drug had a remarkable stimulating effect, promoting the sense of well-being, so that the patient felt the need of it when it was discontinued. One case took $\frac{1}{30}$ gr. to $\frac{1}{2}$ gr. thrice daily for a year. They all felt much better, but there was no real improvement. Weir Mitchell recommends strychnine in cases of neurasthenia, when about to get up from bed after undergoing the rest-cure. Dr. Gray had seen good results in such cases. In summing up, while the cases had been too few for dogmatic assertions, he had found great benefit in functional disorders, great improvement in some chronic cases, slight improvement in others, in two acute and two subacute cases alarming results. He had never felt safe in exceeding one-twentieth of a grain, and usually began with one-fortieth. He had not been able to dispossess himself of a scepticism as to the benefit to be derived from toxic doses. The paper was presented merely as a memorandum.

DR. DANA, of New York, said that he had had some interesting experience with strychnine in functional

nervous troubles. Three patients had taken very large doses. The case in which the drug had been best borne was one of depressing spinal irritation in a young man, compelled to abandon business by reason of physical and mental disability. Beginning with one-fifteenth of a grain thrice daily, the dose had been increased until one day over one grain had been taken in twenty-four hours. This produced slight effects, such as transient incoördination. This patient has now been taking over three-quarters of a grain in the twenty-four hours (four-fifteenths of a grain thrice daily) for more than four weeks, with great benefit. It is given in solution, and there is no doubt of the purity of the drug and the accuracy of the druggist. Two other patients are taking up to one-eighth of a grain and one-sixteenth grain, thrice daily, respectively. He finds these doses well borne in many cases, and has never seen cumulative or explosive effects. He finds that large doses of strychnine quickly relieve the pain and weariness in the back and neck, which is so early a symptom of nervous exhaustion; give tone to the sexual system; and are often efficient in the relief of insomnia where bromides and other sedatives have failed.

THE PRESIDENT, as a non-practitioner, would like to be enlightened as to the cause of the great difference in results obtained by two careful practitioners.

DR. SEGUIN did not see that our knowledge of the proper dosage of strychnine had been much advanced by the discussion. He had been taught, years ago, by Brown-Séquard that in functional nervous diseases large doses of strychnine were well borne. He has repeatedly given $\frac{1}{15}$ grain thrice daily; and after the first week or two does not hesitate to push it. Here he entirely agreed with Dr. Dana. In reference to the plan of Dr. Jewell, he agreed with Dr. Gray that it is risky and dangerous, especially in cases of uncertain diagnosis. He had suggested at the time of the discussion in 1880, that the absence of tetanic symptoms in Dr. Jewell's cases might be explained by the fact that there was no motor gray matter left. In transverse and central myelitis, strychnine is ill-supported, even in moderate doses. In chronic cases he has never dared to give heroic doses; he has used moderate doses, with not over-satisfactory results. He thinks the best means to avoid error is by giving the drug hypodermatically, and closely watching its effects. In a nervo-mimetic case, diagnosticated as locomotor ataxia by an eminent *confrère*, he had given $\frac{1}{15}$ grain thrice daily without toxic symptoms and with rapid improvement.

In reply to the President, Dr. Seguin said that he had never seen cumulative effects. He had been told of one case in a hysterical male subject, and he had to credit the alarming dyspnœa in that case to hysteria.

Dr. DANA suggested that the explosive effects in the case alluded to by Dr. Gray might be explained by the fact that in this case the Doctor had given the drug in pill form, while in the others it was administered in solution.

THE PRESIDENT, DR. BURT G. WILDER, of Ithaca, then delivered his *address* upon

PARONYMY VERSUS HETERONYMY AS NEURONYMIC PRINCIPLES.

The paper, which was quite lengthy and full of elaborate philological details, set forth the existing imperfections in neurological language, and advocated that plan of revision, which, with the minimum of disturbance of existing terms, might introduce accuracy and simplicity in the accepted terminology. He proposed to discard all vernacular names, and select the shorter classical technical ones; abbreviating some by dropping non-essential words, and others by substituting prefixes for adjectives, as medicommissura for commissura media. The great hindrance to anatomical study is the large number of existing terms. A recent collection of those of five languages gives more than 9000 names for less than 500 parts of the brain. The first principle of the new system is the use of mononyms instead of polynyms. It is then proposed to associate conventional or anatomical groups by the use of similar terms, indicating locality by prefixes such as *pre*, *post*, and *medi*. To obviate the objections fairly taken against an exclusively Latin terminology, the system of paronymy is applied—that is, instead of a more or less literal translation into the vernacular of a Latin or other technical term (heteronymy), an English dress is to be given the Latin or Latinic term, as commissure for commissura, peduncle for peduncula, etc. From the selection of the best technical terms, and their modification in this manner, while an English form is given to them they are still readily recognizable by scholars of all nationalities, and the objections against heteronymy, namely, ambiguity, length, literal inaccuracy, and lack of dignity, are obviated.

FRIDAY, JUNE 19TH.—THIRD DAY.

AFTERNOON SESSION.

DR. E. C. SPITZKA read a paper on

THE RELATIONS BETWEEN THE SYMPTOMS AND THE LESIONS OF POSTERIOR SPINAL SCLEROSIS.

An elaborate analysis of the symptoms associated with lesions of various portions of the cord, was presented and illustrated by microscopical sections. Dr. Spitzka was inclined to look upon many lesions as secondary, and the disease in many cases as local rather than systemic.

DR. SEGUIN, in response to an invitation from the President, remarked that nothing can be added to a paper that so admirably presents a comprehensive summary of our present knowledge. He had made some physiological observations, and he would like to ask Dr. Spitzka what bearing they had upon the question of the location of the initial lesion in spinal sclerosis. The point he had noticed was the insusceptibility of tabetic patients to the sensory disturbances of aconitine. Out of some nineteen patients there was but one who had experienced any tingling, and that patient took $\frac{8}{100}$th of a grain of aconitine in twenty-four hours, inducing serious symptoms of poisoning. The general systemic effects were very severe, but the tingling was absent, while in other patients it is usually the first effect noticed. He believes that this subjective tingling originates in the gray matter, and is referred to the periphery. It is said that aconitine acts on the peripheral nerve-endings. If that is the case, he does not understand how we can account for this absence of effect in tabetic patients, as we usually consider these sensations independent of conduction, as in the cases of subjective pain referred to amputated limbs. His

observations are as yet incomplete, but he inclined to the belief that they indicate an early change in the gray matter.

DR. SPITZKA replied that one aspect of Dr. Seguin's observations puzzled him. He could not account for the absence of tingling in the face. Dr. Seguin's explanation of early lesion of the gray matter would hold good so far as concerned the affected extremities. He did not believe that a single drug of this class acted upon the periphery, but this question might easily be settled by an amplification of Dr. Seguin's experiments, that is, the administration of aconitine to patients with peripheral disease. He was of the opinion that the primary lesion is in the gray substance.

DR. B. G. WILDER called attention to

A SELDOM DESCRIBED ARTERY OF THE BRAIN,

A. termatica, which he said was always present. According to Gray and other anatomists, the two anterior cerebral arteries have a connecting link, the anterior communicating, whereas, according to Dr. Wilder, this is usually absent, the anterior cerebrals joining one another directly. It is from the point of juncture of these two vessels that the arteria termatica is given off. It is the only azygos artery in the brain. In regard to nomenclature, he proposed to substitute the names precerebral, medicerebral, and postcerebral for the anterior, middle, and posterior cerebral respectively.

DR. WHARTON SINKLER, of Philadelphia, contributed a paper on

TWO CASES OF FRIEDREICH'S DISEASE.

(See page 3.)

DR. SEGUIN has published five cases in *The Medical Record*. In this disease there is distinct paresis, and a tendency to contracture of the muscles of the leg. One of his cases has equinovarus, the tendo Achillis being strongly contracted. There is no anæsthesia and no pain, and yet there is degeneration of the whole of the posterior columns of the cord. As to the differential diagnosis, there is but little difficulty in distinguishing this disease from disseminated sclerosis. There is none of the peculiar tremor that belongs to the latter disease. It is distinguished from tabes dorsalis by the absence of pain and by the age, Friedreich's disease occurring in children. The ataxia of the lower limbs is very imperfect and not characteristic as in tabes. No treatment has any effect.

DR. AMIDON said that he had a case of this disease under treatment, the patient being a girl aged eleven years. She commenced to walk at eight months, had an attack of whooping cough followed by paraplegia. This disappeared at the end of three months. At the present time the patient is bright, not hysterical, and has no bad habits. She is of normal size. The skin is thick and bound down to the subcutaneous connective tissue. Her gait is ataxic; there are no ocular symptoms, and no pain. The reactions to electricity are normal; the patellar reflex is absent.

DR. STARR: Dr. Friedreich considered this disease due to a congenital deformity of the cord. There is no cerebral degeneration.

DR. G. W. JACOBY exhibited two new instruments: 1. An improved galvanometer. 2. A graphite instrument.

Much discussion followed as to their usefulness, resulting in the appointment of a committee to secure some absolute standard for the measurement of electricity.

EVENING SESSION.

DR. SPITZKA gave a demonstration of a *Brain Monstrosity*.

DR. SEGUIN read a paper entitled

A CONTRIBUTION TO THE PATHOLOGY OF THE CEREBELLUM.

The patient, an army officer, was first affected in 1867. He came under Dr. Seguin's treatment in 1877. The disease began with very severe headaches and one or more epileptiform or apoplectiform attacks. These were characterized by an impending loss of consciousness, but he never fell. He had no vertigo. In 1868 he consulted Dr. Agnew for failing sight. There was no diplopia. There were optic neurosis and partial atrophy.

After this the headache continued as the chief symptom. He had no return of the attacks and no symptoms in the legs. A seton was placed in the back of the neck, and in the course of a year (1868) the headache disappeared. In 1869–1870, the patient began to notice a gradual loss of power in the legs. There were no peripheral pains. From 1871 to 1874 the patient was in Europe. Legs and head were troublesome; no anæsthesia, no distinct paralysis; sight impaired but not getting worse. The patient had an appearance of hebetude. Returned to the United States in 1874 and since then has been in *statu quo*. Has lately had diplopia for distant objects; is pale and thin, but has had less headache. He has no ataxia, and walks with his feet apart. There was no vibration during rest. No marked change occurred until a few months before the fatal result, a few months ago. Then some difficulty with articulation and deglutition, stupor and death with cerebral and bulbar symptoms. Patient died comatose.

Post-mortem examination. The vertex of brain was pale and flabby. Base: Olfactory bulbs normal, optic nerve smaller and dull yellow. Carotids stiff, gaping, and the seat of marked arteritis. Other arteries at base in same condition, the basilar being the most diseased. No thrombi anywhere. Posterior aspect of cerebellum revealed a large cyst, two inches in diameter, occupying the sight of the vermiform process. Fourth ventricle was not diseased. Cyst lay mostly in the right hemisphere; it was monolocular and contained a clear fluid. The lateral ventricles were dilated. Spinal cord: The veins were much injected, varicose, and more numerous than normal. The cervical and dorsal enlargements were normal except a doubtful grayish appearance in the right postero-lateral columns. The cord seemed small for the size of the subject. The heart was hypertrophied and its walls much thickened. The aorta was atheromatous but not calcareous. The patient was of a peculiarly frank disposition, and there was absolutely *no history of syphilis*.

DR. AMIDON gave the history of a case of cerebellar tumor in a child of six. The mother had been the subject of sarcomatous glands of the neck, which had been removed by operation. One year after, the child, then five years of age, had an attack which resembled tubercular meningitis except that there were no convul-

sions. There had been the regular prodromata of this disease. There were moderate ptosis and moderate strabismus. The child was under the influence of potassium bromide, but was tossing violently. Speech was almost abolished. The optic nerves were probably not much affected, as the child recognized his mother across the room. The patient remained free from fever. At the end of a week the diagnosis of tubercular meningitis was given up. The patient developed great muscular weakness, progressive stupor, incontinence, and finally died comatose. The head was rather hydrocephalic.

Post-mortem examination showed a sarcomatous tumor in the cerebellum involving the front ventricle.

After some general discussion the Association adjourned to meet next year at the same time, the place of meeting to be hereafter announced.

NEW YORK COUNTY MEDICAL ASSOCIATION.

Stated Meeting, June 15, 1885.

THE PRESIDENT, CHARLES A. LEALE, M.D., IN THE CHAIR.

DR. FRANK H. HAMILTON presented a paper entitled

A FEW PRACTICAL REMARKS ON RUPTURE OF THE PERINEUM.

It is unjust, he thought, to say that this accident can always, or even generally, be prevented by the skill of the accoucheur, since its occurrence is often due to conditions and circumstances over which he has no control. Having enumerated some of the causes which may determine this result which are wholly beyond the power of the accoucheur to remove, he referred to the advice given by various authorities in regard to the management of the perineum. As to the usual direction to "support the perineum," he stated that he would venture to say that the idea cannot be sustained by any sound mechanical theory or by experience.

If the purpose of making pressure upon the perineum, however, is to carry the head forward towards the pubes, the suggestion has a meaning, and can be understood; and he thought this is advisable whenever, from lack of curve in the sacrum and coccyx, or from any other cause, the vortex does not take this direction. Still, these examples are rare and exceptional. A lacerated perineum is sometimes caused, he continued, by the improper haste of the accoucheur, who seeks to expedite labor by the use of ergot or some other similar agent, or by unnecessarily resorting to the use of instruments. Some modern gynecologists do not think the danger of rupture of the perineum is increased by the use of the forceps, if only they be used skilfully; but he thought it certainly must increase the danger if the instruments are used unskilfully, and where, in the hands of even the most skilful, the instrument is retained in position until the head has entirely escaped from the vulva. Nor did it appear to him that the argument in their defence is conclusive, even when they are only employed to bring the head into the lower strait and then withdrawn. It is claimed, he said, that by this simple manœuvre the process of natural labor may often be greatly expedited; but this is the very thing which it is generally most desirable to avoid, so that, as Meigs says, the perineum may not be taken by surprise.

In this connection, Dr. Hamilton remarked that since the time when he commenced the practice of medicine, the question of instrumental labor has undergone a complete revolution. "I was a pupil of Dewees," he said, "and was taught that the forceps were seldom required; but to-day the teaching is altogether different, and there are now many gynecologists who count their instrumental labors by the thousands. A young man who was urging me to apply the forceps to his patient, but in which case the result proved that it was unnecessary, told me that a friend of his, a recent graduate of one of our city schools, and who was doing a large obstetrical practice in a neighboring town, assured him that that he never put a woman to bed without forceps. I do not hold this young man's teachers responsible for his practice, but the fact illustrates what is now the drift of professional opinion."

He next spoke in condemnation of the general use of anæsthetics in parturition at the present day, remarking that their effects are by no means in all cases limited to the alleviation or abolition of pain when employed in this class of cases. Not infrequently they increase the frequency and strength of the uterine contractions, and this is especially apt to happen when they are given in small quantities and in the first period of their exhibition; so that they may thus contribute to the production of a hernial rupture. In other cases under their influence he has seen the uterine contractions temporarily suspended, and long-continued inertia with resulting delay in the expulsion of the placenta and hemorrhage ensue. Dr. Hamilton concluded this portion of his subject in the following language: "While there can be no doubt that the forceps and anæsthetics have been of incalculable service to parturient women, I have a strong conviction that, since they have come into such common and almost universal use, they have done a great deal of harm. I believe the time is not distant in the future when it will become apparent to all that we have in these matters progressed too rapidly, and possibly that our progress has been altogether in the wrong direction."

Having referred to the various degrees of rupture of the perineum, he said that the concurrence of a deficient perineum and of prolapsus uteri does not always stand in the relation of cause and effect. The perineum in its most perfect condition does, and when the uterus occupies its normal position, gives no direct support to the latter, and the uterus may be made to descend from many causes, whether the perineum is sound or not, while if in its descent it has been brought into actual contact with the perineum, the presence of the latter is an important obstacle to its further protrusion. The absence of the perineum, when the vagina and uterus are in their normal condition, can only influence the descent of the uterus by first inducing atony of the muscular fibres of the vagina, with congestion and prolapse of the vaginal walls, by which not only the full and indirect support which the perineum gives to the uterus is removed, but the vaginal walls become actually a dead weight to drag the uterus downwards. These consequences to the vaginal walls and to the uterus, however, by no means always ensue upon the total destruction of the perineum.

Dr. Hamilton said he could not agree with some modern gynecologists that it is better in such cases to

proceed at once to close the rent by sutures. The parts have suffered such a degree of stretching and contusion as to render the occurrence of inflammatory reaction, if not of sloughing, almost inevitable, while the lochial discharges will make it impossible to keep the parts clean. In addition, the operation itself inflicts a severe injury when the condition of the patient is already critical from other causes; and, finally, under judicious management, the rent frequently becomes partially and sufficiently closed spontaneously. If spontaneous closure of any portion of the rent takes place under these circumstances, it is probably not usually effected by the direct contact and immediate adhesion of the lacerated surfaces. The surgeon encounters sufficient difficulty in securing this result, even when, at a later day and under much more favorable circumstances, and after an extensive denudation of the surfaces, he attempts the closure by the aid of sutures. It is much more probable, he thinks, that the union occurs in these cases by the secondary process of granulation. The parts need not be unnecessarily or forcibly drawn asunder, but they may be carefully exposed to view each day, and made clean by gentle ablution; while the urine should be drawn by a flexible catheter as often as required. In further support of the opinion that an immediate operation is not in most cases, if any, advisable, he thought it should be explained more fully that, if it were possible to secure union by adhesion at this early period, the operation must be made within a few hours at most. Hewitt had expressed the opinion that the primary operation should be performed within one hour from birth; believing that it is of little use to insert sutures when the labor has been on some hours. "But," said Dr. Hamilton, "one may ask Mr. Hewitt what is to be done with that very considerable number of cases in which the expulsion of the placenta is delayed beyond an hour? Shall the rent be closed before it is expelled, at the risk of the sutures being torn by its subsequent passage? Or is the accoucheur again to interfere with the course of nature, and, with more or less violence, as may become necessary, remove the placenta without reference to the present general condition of the patient or of the uterine contractions?" Since it is proposed to make the operation under every surgical disadvantage, and when the patient, prostrated and trembling from the results of a severe labor, is in the worst possible condition, both mentally and physically, to endure the shock of an operation, or even its announcement, he believes that nothing but the most urgent imperative necessity can justify the operation under these circumstances, while this necessity has not been shown to exist. At this early period, also, it is often difficult for an expert even to form anything like a definite opinion as to the actual extent of the lesion. A rent, which at first seems to be an inch or two in length, on account of the distended condition of the perineum, will, after contraction a few hours later, be found to be not more than a quarter or half an inch.

He then passed on to speak of the secondary operation, and having referred in passing to the preparatory treatment, gave the details of the operation as follows: The patient being anæsthetized and placed in the usual position for lithotomy, while an assistant displaces the upper wall of the vagina with a Sims or Bozeman speculum, the surgeon will proceed with mouse-tooth forceps and scissors to divide the surfaces which are to be brought into contact. These surfaces should be extensive, rarely less than one inch in the antero-posterior direction; and they should extend inward along the vaginal wall nearly as far. The denudation must also be complete, the interposition of the smallest portion of the mucous membrane or integuments between the lips of the wound being sufficient partially or wholly to defeat the operation. All bleeding having ceased, three well-waxed sutures, of the largest size of harness-makers' silk, are to be introduced, the first being placed at the angle of the wound close to the sphincter. The needle, armed with a double ligature, must be inserted at a distance of from three-fourths of an inch to one inch from the margin of the wound, carried to a sufficient depth to include the entire surface which has been made raw, and brought out at a corresponding point upon the opposite side. Each suture will be introduced in the same manner. Sections of a large-sized flexible bougie, one inch longer than the fissure, are laid upon either side, and the double sutures drawn upon until the lips of the wound are brought together with moderate firmness, when the sutures are tied. In most cases, in order to secure accurate apposition of the margins of the wound, it is well to insert two or three very delicate superficial sutures. The knees of the patient should then be tied together lightly, and with a small pillow interposed between the knees.

Having spoken of the after-treatment, he said that in case the rent involves more or less of the recto-vaginal wall, the difficulties of the operation will be greatly increased, and it will be advisable always to paralyze the sphincter by two lateral incisions, extending backward and outward on each side, as first recommended by Baker Brown. He said, in conclusion, that he had made no reference to the use of the wire suture in this operation, because he preferred to employ the so-called "quilled" suture, because he did not find the wire so easy to introduce or to remove, while he had not found it to possess advantages in any other respect. If, however, the rent or loss of structure involved any considerable portion of the recto-vaginal septum, he would recommend, so far at least as the rectal fissure is concerned, the wire suture, either with or without Bozeman's clamp.

After the reading of his paper was completed, Dr. Hamilton made a few supplementary remarks. Dr. Fordyce Barker said that he employed chloroform for the purpose of preventing perineal rupture; explaining its agency in this connection in two ways. The first explanation was that it relaxes the muscular fibres of the sphincter vaginæ. Dr. Hamilton, however, regarded this as a physiological error, not to say absurdity. When the sphincter is distended to such an enormous degree as is the case when the head is pressing upon the perineum, it is impossible for any constitutional measure, such as the administration of chloroform, to have any effect in relaxing the tension. The second explanation was that the uterine action was somewhat suspended by the chloroform, and to that extent relieved the perineum. Dr. Hamilton said that this was satisfactory as far as it went; but when the head advanced, this influence would have no effect. On the whole, therefore, he regarded the use of chloroform as an unnatural interference with labor.

As to the frequency of a perineal rent of a serious character, Meigs, in the fifth edition of his work, page 54, says: "I defy any one to show me from my own practice, a case of durable rent of the perineum." The expression *durable* Dr. Hamilton understood to refer to such a rupture of the perineum as would require surgical interference. It would not do to ignore this and say that Prof. Meigs was an old practitioner; for here was not a theoretical idea, but a *fact*. Yet he was a practitioner who very seldom employed instruments, and who, like his predecessor, Dewees, very seldom, if ever, resorted to anæsthetics.

Finally, Dr. Hamilton referred to a letter which had recently appeared in the *Medical Record*, describing the Vienna obstetrical service. In the Vienna Lying-in Hospital are confined every year about nine thousand patients, and yet the mortality is less than one-half of one per cent. "The entire absence of medicine," says the writer, "to hasten the labor when too slow, or relieve severe pains, or to induce them when wanting or feeble, is noticeable. Avoidance of every kind of interference in labor is carried to the greatest extreme. Even for forceps operation, or a version, unless extremely difficult, no anæsthetic is administered. Great care is taken also to prevent the least injury to the os uteri. The utmost respect is paid during labor to this part. It must dilate normally, and in its own time. Artificial dilatation is not permitted even with the finger, and all mechanical appliances for dilatation are 'inventions of the devil.'"

DR. AUSTIN FLINT read a paper on

PERSISTENT FLATNESS OVER THE LIVER AS PROOF THAT ACUTE DIFFUSE PERITONITIS IN NOT ASSOCIATED WITH INTESTINAL OR GASTRIC PERFORATION.

(See page 1.)

DR. CHARLES S. WARD read a paper on

INTUSSUSCEPTION OF THE INTESTINES, WITH THE REPORT OF A CASE.

The case was that of a child eight years of age, in which general peritonitis and excessive tympanitis supervened. The following was the course of treatment adopted: Large enemata of warm water, with the position of the body nearly reversed, repeated every three hours, and sometimes with a few drops of turpentine or of essence of peppermint in the water; one granule every hour containing one-tenth of a grain of calomel; about one-eighth of a grain of morphia every three hours, or, at all events, enough to relieve the pain and procure some rest; ice *ad libitum;* milk and beef-tea in small but frequent doses; hot water stupes constantly applied and frequently changed. Recovery ensued, but convalescence proceeded very slowly, and it was not until four weeks from the time of the attack that the child was able to sit up in bed and take sparingly of solid food. Pain and vomiting, followed by great prostration, were easily excited, and the greatest care had to be taken. During the latter part of the illness ipecac, with spiced syrup of rhubarb, was given three times a a day.

Having related a case in an infant eighteen months old, successfully treated without operation, as reported by Dr. Collier in the *Lancet*, Dr. Wood made some general remarks on the affection and its treatment. In regard to laparotomy, he said, after having briefly reviewed the literature of the subject: "I have thus presented a few of the many statistics scattered through our works and medical journals, for the purpose of showing how extremely uncertain in its results is the operation of laparotomy for the relief of this distressing malady, especially in children, who easily succumb from so serious an operation by shock at the time of its performance, or inflammation, which usually follows. The surgical interference in the case of adults, for impediments other than the one under consideration, gives better hopes of success, and should be adopted, as so eloquently advocated by the late lamented Sims, in a paper read before the Academy of Medicine a short time before his death, in which he urged the importance of the operation in all cases that were not promptly relieved by other means, owing to the great advantages we have at the present day, as compared with even a decade since, by virtue of the power of antiseptics carried out to its logical sequences.

THE PRESIDENT made some remarks on

A METHOD OF DIRECT LOCAL TREATMENT FOR DISEASES IN THE REGION OF THE ILEO-CÆCAL VALVE, AND ALSO FOR THE SAFE REMOVAL OF IMPACTIONS OF THE INTESTINES.

On many occasions during the past twenty years, he said, while observing the intense pain and great danger to life arising from accumulating flatus in the intestines in cases of idiopathic and traumatic peritonitis, obstructions at the ileo-cæcal valve, hypertrophy and retroversion of the uterus, causing obstruction at the rectum, also where there were tumors and the lodgement of foreign bodies, the contraction of adhesions, etc., he had longed for a means of giving exit to the imprisoned air. Fifteen years ago he resorted to colocentesis in these cases, by introducing a long capillary needle—twice the thickness of the usual hypodermic needle and six inches long—quickly through the walls of the abdomen into the inflated bowel. By this means the gas escaped, but it gave, as a rule, only temporary relief, and as the intestinal obstruction still remained reaccumulation of the flatus nearly always followed.

Dr. Leale then exhibited a long flexible rubber tube, which could be readily attached to an ordinary fountain syringe, and said that early in June he had been able to relieve by means of it a lady who was dying from the pressure upon the heart and lungs of a large accumulation of intestinal gas. There was an impaction of the intestines which was gradually removed by the injections. The tube passed fifty-nine and a half inches into the bowels, and he had reason to believe that its extremity actually went through the ileo-cæcal orifice. Before inserting the tube it was advisable to introduce a large rectal speculum, which would prevent a retroverted uterus or other obstruction from interfering with the passage of the tube. When it is desirable to apply a remedy, such as bismuth, for instance, to any part of the intestinal tract, it can be added to the water to be injected through the tube.

DR. H. M. BRIGGS presented some interesting pathological specimens. The first of these was

A HEART WITH ABUNDANT VEGETATIONS IN ALL FOUR OF ITS VALVES.

This, he said, is exceedingly rare, and he had never heard of another case. In the two hundred cases tabu-

lated by Dr. Osler, in his recent Gulstonian lectures, there was no instance of this kind. The other specimen was a female bladder, containing a large calculus (apparently of oxalate of lime), and exhibiting old cystitis and trabecular hypertrophy. The ureters were dilated, and the kidneys were the seat of well-marked pyelonephritis and other disease.

DR. ISAAC E. TAYLOR spoke on the subject of Dr. Hamilton's paper, and said in commencing that the views expressed in it were to a large extent in consonance with his own. The whole subject of the management of the perineum, he thought, is one of great simplicity. His practice is not to touch the perineum, but to prevent its rupture by the judicious management of the head of the child whether in the cavity of the pelvis or emerging. The shoulders, he believed, are much more apt to produce laceration of the perineum than the head. The forceps are not as frequently the cause of rupture as Dr. Hamilton seemed to think; but, at all events, the manner in which they are used has a good deal to do with it. A great variety of methods have been proposed for the management of the perineum during parturition, but, as a rule, they are neither cleanly, philosophical, nor physiological. The correct plan is, he thought, to place the fingers entirely back of the perineum, on the part between the rectum and the coccyx. In this way direct pressure can be made upon the child's forehead, and the perineum saved by delivering the head between the pains. Placing the fingers in this situation also enables the accoucheur to prevent rupture of the perineum in occipito-posterior positions by changing them to face presentations. As he had remarked, great care should always be taken in the delivery of the shoulders on account of their liability to cause a rupture. In regard to the use of anæsthetics, he said that he always went to his obstetric cases provided with both chloroform and ether. He had long since noticed that in a certain proportion of cases, chloroform had the effect of putting a stop to uterine contractions, and in these instances he had found that ether almost always had a very happy effect in bringing on the pains again. If one of the anæsthetics did not answer, therefore, he would try the other, and its action generally proved satisfactory. Like Dr. Hamilton, he did not approve of the immediate operation in ruptured perineum; believing that, as a rule, it is much better to wait for three or four weeks after the birth of the child. It is a fact that the severe effects of labor not infrequently produce a paresis of the perineum which gives it an appearance closely resembling a laceration; but which in a few hours, or in some cases a longer period, entirely passes away.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 18, 1885.

THE PRESIDENT, A. JACOBI, M.D., IN THE CHAIR.

DR. H. W. MITCHELL read a paper entitled

OBSERVATIONS ON THE OPERATION FOR LACERATED PERINEUM, WITH DEMONSTRATIONS AND CASES.

His opening remarks were devoted to the anatomy of the part and to the effects of laceration, such as rectocele and cystocele, and that annoying dragging sensation so often complained of, which tends constantly to grow worse. Some have claimed a spontaneous cure of the lesion by tying the patient's legs together; but he had never seen any except a very partial union under these circumstances. When the parts are torn, the proper thing to do is to restore them to their original integrity; and this is possible by means of a simple operation which can be performed by any physician of ordinary skill. Having spoken of the preparatory treatment, he described the common operation of denuding the surfaces of the lacerated tissues and uniting them by means of deep silver wire sutures. Formerly he had been in the habit, according to the general custom among surgeons, of drawing the wires through by means of a silk loop; but more recently he had adopted the plan of threading the needle directly with the silver wire, and he considered this in every way preferable. He made it a point always to insert the finger into the rectum as a guide when passing the sutures. He thought it well to employ as few sutures as would answer the purpose desired. He employed a curved needle, and inserted and brought out the sutures through the skin at some little distance from the edges of the wound. Having secured the deep wire sutures by twisting them together with moderate tightness, he passed one or more superficial silk sutures to approximate the edges of the skin. The urine was drawn with a catheter before the patient left the table.

In five out of forty cases in which he had operated during the last fifteen months, he had used carbolized water as an antiseptic dressing, but in the other thirty-five he had employed no antiseptic whatever. He said that all the operations had been attended with complete success, and that union by first intention had resulted in every instance. The after-treatment consisted in keeping the parts scrupulously clean and the bowels confined for the first six days; the patient in the meanwhile living upon a light diet. On the sixth or seventh day the sutures were removed.

In case there was also a laceration of the cervix requiring treatment, he operated on that at the same time as the perineum, the cervical sutures being allowed to remain until the eighth or ninth day. When the sutures are removed, the patient is permitted to get up, and when she first does this it is sometimes found that there is a slight paresis of the lower extremities resulting from the want of action on the part of the muscles during the time that she was confined to bed. This usually lasts but a few hours, but in exceptional cases may remain for several days.

In all the forty cases it was the secondary operation that was performed, and in nearly one-half of the entire number there was laceration of the cervix, upon which he operated also. It is his practice to sew up the cervix with the patient in Sims's position, and then to turn her on her back for the perineal operation. In two of the cases the rupture of the perineum was associated with complete procidentia uteri; one of the patients being 76 years of age, and the other 65. In the case of the older of the two, before operating on the perineum, he amputated the whole neck of the uterus, according to the method of Dr. Isaac E. Taylor; and in both instances a perfect result was obtained. One of the other cases operated on was that of a lady six months pregnant, who insisted on having the operation per-

formed on account of the great discomfort from which she suffered in consequence of the ruptured perineum; and when the ether was given her, the fœtus in utero was also anæsthetized, the effect of the drug remaining for several hours. This patient then went on to full time, and the new perineum stood the strain of the labor perfectly well. After narrating the forty cases seriatim, Dr. Mitchell announced a number of conclusions derived from his study of them. The most common cause of laceration of the perineum he found to be the incompetence and carelessness of midwives, who attend so many women of the lower classes in their confinements.

DR. ALFRED C. POST thought it wiser to keep the bowels open regularly after the operation. By doing this the patient is rendered more comfortable, and the functions of the body generally are more satisfactorily performed. He thought it decidedly objectionable to have an accumulation in the bowels, such as results from keeping them confined for six or seven days, and he believed it is now the practice of the best gynecologists to see that after the operation the bowels are opened every day. As to the operation which Dr. Mitchell had employed, it certainly seemed to have been very successful in his hands, but for himself he preferred the plan which he had described before the Academy a short time before, of simple incisions (without denuding the mucous membrane), and then bringing the parts together by means of two flaps, one looking upwards and the other down toward the perineum.

DR. MALCOLM MCLEAN said that he was surprised to hear the author of the paper say that he had discarded the silk loop and threaded his needle directly with the silver wire. He believed it much preferable to use the silk loop, and this procedure is almost universally adopted among gynecologists. At the present day the curved needle is decidedly antiquated. It is impossible to guide it with accuracy, and the short straight needle is used almost altogether in place of it. By elevating the parts it can always be inserted with perfect precision. Another point: where the sutures are inserted through skin as well as mucous membrane, a very serious amount of pain is almost invariably caused. Yet Dr. Mitchell had expressly stated in almost every instance in narrating his cases that the patient was free from pain after the operation; and he would like to know how he explained this.

DR. SIMON BARUCH said that he fully agreed with Dr. Post as to the advisability of keeping the bowels open. The old method of keeping them confined had now to a great extent been given up, and for this step in advance the profession was indebted to a gentleman of this city, Dr. Hanks. He also had the same objection to the curved needle that Dr. McLean had, viz., that it is impossible to guide it accurately. The author of the paper, however, certainly deserved credit for his attempt to simplify the operation as he had done, since it is highly desirable that every practitioner should feel himself capable of performing it whenever the occasion may arise. He was also glad to see that he condemned the doctrine that the perineum is in any source a support to the uterus. On this subject he believed that Emmet's views are entirely correct. As to having the sutures through the skin, he thought this must necessarily give rise to more or less pain. It was like the operation for hemorrhoids, before Allingham's method was adopted, when it was always requisite to use opium freely in the after-treatment. In Emmet's new operation all the sutures are within the line of the muco-cutaneous fold of the vulva, and it is followed by no pain whatever. While, however, Emmet's operation is, he believed, the best in many respects that has yet been devised, it is a difficult one to describe satisfactorily, and he feared, therefore, that it will not be as widely understood and become as popular as it deserves to be. In the operation employed by Dr. Mitchell very little of the rectocele seemed to be taken in, and while it is no doubt an excellent operation in comparatively recent cases, this, he thought, is a serious objection to it in many older ones. Still, the results in his hands, according to the reports which had been made, are certainly very creditable to him. As to discarding the use of the silk loop, he could see no satisfactory reasons for doing this.

DR. MITCHELL said, in reply, that with the plan which he had adopted, no inconvenience whatever is experienced from keeping the bowels confined. The night before operating he always orders some efficient laxative, and in the morning this is followed by an enema. As the food taken during the days succeeding the operation is always of a very light character, there is consequently little accumulation of fecal matter in the bowels. As to the reason why there was so little pain after his operations, he could not say, but such was the fact, and he thought it a mistake to suppose that the passage of the sutures through the integument necessarily gives rise to pain. In surgical procedures in other parts of the body, it is very common to pass sutures through the skin, and yet in many of them this is not followed by any special pain. In regard to the curved needle, he said that with the finger in the rectum he had found that its direction could be guided perfectly and without any difficulty, and he thought it decidedly preferable to the straight needle. There is no necessity whatever for lifting up the parts with the tenaculum. When the silk loop is used in connection with the wire suture, a larger needle is required, and altogether he thought this procedure complicated the operation and made it seem difficult. One great objection to Emmet's operation is, that it is not sufficiently simple, and his experience had shown that, by this simpler one, described in the paper, a torn perineum can be perfectly restored, which is the particular object in view.

DR. JOSEPH A. ANDREWS read a paper on

CONTAGIOUS CONJUNCTIVITIS: ITS CAUSE, PREVENTION, AND TREATMENT.

In the earlier part of it he gave the results of practical investigations made by himself in the report of a case of successful inoculation of the conjunctiva with a pure gonococcus culture of the seventh generation. It was not, however, in a healthy eye, the patient suffering from pannus and other trouble. Three weeks previously he had inoculated the conjunctiva of the same individual with a pure culture of a coccus found in healthy saliva, but with an entirely negative result. After the gonococcus inoculation, however, the eye presented a perfect picture of gonorrhœal conjunctivitis. Having given a *résumé* of the results obtained by other obser-

vers in similar experiments, he went on to speak of ophthalmia neonatorum. While the infection is often received directly from the vagina of the mother at the time of birth, he believed that more frequently it is contracted somewhat later and through other channels. It has been ascertained that normal lochial discharge does not produce blenorrhœa. When a child is the subject of the disease, there is danger of its infecting the whole household, and it is necessary that great care should be observed to avoid this.

In speaking of granular conjunctivitis, he said that Sattler claimed to have produced this affection by inoculation; but in this he believed that he was probably mistaken. Personally, he had not been able to find cocci of any kind in over fifteen hundred cases in which he had made careful examinations. The secretion is apparently the carrier of the contagion; but it requires special conditions, such as are liable to result from overcrowding, improper diet, and bad hygienic surroundings generally, for its development.

As ophthalmia neonatorum is sometimes contracted directly from the vaginal secretions, it is advisable that the parts of the mother should be very thoroughly cleansed before the birth of the child. When there is reason to fear infection, the eyes of the infant should be washed with a saturated solution of boracic acid, and a two per cent. solution of nitrate of silver also applied. Credé's method of prophylactic instillation has been followed with excellent results. In addition to the two per cent. nitrate of silver solution he uses a solution of salicylic acid. Up to 1880, when he first began the practice, the disease attacked no less than ten per cent. of all the infants at the Leipsic Lying-in Hospital; but since this plan has been adopted there has been only about one case a year, out of from three to four hundred children born.

DR GARRIGUES for several months had had a two per cent. nitrate of silver solution applied to the eyes of all new-born infants in the Maternity Hospital on Blackwell's Island, and out of 351 children, had not a single case of the disease. He did not state in his report, however, whether any of the mothers were infected. In Dr. Mundé's service at the same institution, the two per cent. solution was used upon 80 children without a single case of the disease; while in Dr. Murray's service, in which a one per cent. solution of nitrate of silver was employed, ten or twelve out of fifty infants were attacked. It is claimed by Credé and others that the one per cent. solution is not sufficiently strong to prevent the affection.

Post-natal infection, as he had said, is, in his opinion, more common than infection at birth, and it is derived from the mother through the agency of sponges, towels, etc. In any case, therefore, when there is danger of infection it is best to keep the child entirely away from the mother except at the time of nursing. Ophthalmia neonatorum is a disease which prevails principally among the poorer classes, and he believed it the duty of physicians to warn dispensary patients and others of its danger, as they had the opportunity. In regard to the statistics of contagious ophthalmia in some of the asylums of New York, as presented by Dr. Daily, at the last meeting of the Academy, he thought that the percentage would have been still larger if he had included public school children in his figures.

The conclusion of the paper was devoted to the treatment of purulent conjunctivitis. The first thing to do is to wash away any infecting material, and the second to render the conjunctival surface as nearly as possible antiseptic. Injections should be used for several minutes at a time, after which a two or four per cent. solution of nitrate of silver should be applied. If the latter strength is employed, it is advisable to follow it with a solution of chloride of sodium to neutralize it. Boracic acid and vaseline make an excellent dressing, and iced cloths should be kept applied to the eyes. If there is much swelling of the eyes, the outer canthus should be cut. Dr. Andrews exhibited an eye speculum he had devised, which was made hollow, so that by attaching to it a fountain syringe irrigation could be practised in a very satisfactory way by means of it. A three per cent. solution of carbolic acid could be used in the case of adults. From four to twelve per cent. solutions of nitrate of silver may be required according to the urgency of the case.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, June 1, 1885.

THE PRESIDENT, C. T. PARKES, M.D., IN THE CHAIR.

DR. E. FLETCHER INGALS read a paper on

HAY FEVER, ITS CAUSES AND CURE,

in which he said this disease had been the subject of investigation since it was discovered by Bostick, in 1819, but only recently has the profession arrived at satisfactory conclusions as to its etiology and treatment. The disease is met with commonly in southern England and the United States, rarely in Europe, and never among the natives of Asia and Africa. It is an aristocratic affection, being found more commonly among the residents of villages and cities, and the opulent, rather than farmers and the poor, notwithstanding the theory that it is caused by the pollen of grains.

Hay fever usually makes its appearance about the middle of August, and lasts until the first frosts of autumn. During an attack the mucous membrane covering the turbinated bones is greatly swollen, usually congested, the congestion often extending to the palate, fauces, pharynx, and conjunctiva. Microscopic examinations of the secretions have revealed numerous vibrios, which were formerly thought to be the cause of the affection, but it is more probable that their presence is accidental, as they may usually be found in the nasal secretions at other times. The pollen of plants acts as causes, not *per se*, but as exciting causes, being irritants to an exhausted nervous system. This nervous exhaustion renders the nasal nerves peculiarly susceptible to irritant substances. The theory of the nervous origin of hay fever has been generally accepted by the profession, although it has been only recently established that the tract involved is limited in the majority of cases to the lower turbinated bones and the lower and back part of the septum. In a considerable number of cases the sensitive areas are even more limited, though in some cases the middle turbinated bodies are involved. The sensitive areas are not uniform in different cases.

After referring to the symptoms and diagnosis of the affection the treatment was discussed. Weak solutions of quinine had been applied to the diseased regions, on

the theory that this drug would destroy the minute organisms which were formerly supposed to be the cause of the affection. While this remedy had proven efficacious in some instances, it was found that weak solutions of soda, or other non-irritating drugs, had proven as efficacious. Many remedies have been vaunted as specifics in the treatment of this as in that of other intractable, self-limited diseases, and they have been found sadly wanting in curative properties.

Internal remedies that are of value are tonics and antispasmodics, and local remedies which sometimes give relief in the onset of the disease, are weak solutions of quinine, carbolic acid, tincture of opium, powders of morphia, bismuth, iodoform, etc., but they are not curative. For the asthmatic symptoms we can use the remedies appropriate to spasmodic asthma. However, it is only recently that we have found a method of treatment which promises to cure nine cases out of ten, and a remedy which promises to relieve the distressing symptoms in a fully developed case of hay fever. The latter is cocaine. Its action is such that it promises to be very valuable in the palliative treatment of the dis ease. A case of idiosyncratic catarrh, which closely resembles hay fever, came under Dr. Ingals's observation recently. A two per cent. mixture of cocaine and starch was blown into the nose as soon as the paroxysms came on. It gave immediate relief, and was repeated as the attacks recurred. About two weeks after another attack supervened, and the same treatment gave relief. Cocaine will doubtless prove to be a remedy of great palliative power in this affection.

Successful treatment by the galvanocautery, which was first thoroughly tried by Dr. Roe, had, previous to last May, been applied by Drs. Roe, Allen, and Sajous, to about thirty cases, about eighty per cent. of which were reported cured. As the disease is caused by a peculiar sensitiveness of the terminal branches of the sphenopalatine ganglion and nasal nerve, which are distributed over the septum and turbinated bodies, the treatment to be effectual must remedy this hyperæsthetic condition. The means adopted for accomplishing this purpose consist in applications of glacial acetic acid, carbolic acid, and other escharotics, and searing the membrane with the galvanocautery. The chemical agents often fail, but the galvanocautery, properly used, seldom fails. Successful treatment with the galvanocautery requires from ten to twenty sittings, and should be completed before the attack comes on. The method used is first to examine the nasal cavity with a slender, flat probe, by which the sensitive spots are located, and then the cold electrode is passed into the parts, and having reached the point to cauterize, the electricity is turned on whereby the wire is heated. It is applied for the fraction of a second to the diseased tissue, causing a small superficial burn. This operation is repeated at intervals until all sensitive spots have been relieved, care being taken not to burn too large a surface, else severe inflammatory action may ensue. When skilfully performed the operation causes little pain, and if cocaine is applied previously, no pain will follow. If no anæsthetic is used, the pain may be relieved by spraying the parts with Dobell's solution. In conclusion, nearly all cases may be cured by systematic, thorough, superficial cauterization with the galvanocautery of the hyperæsthetic portion of the nasal mucous membrane, providing the treatment is carried out between the attacks. Care must be taken to cauterize every sensitive spot, and not too much at once. The operation may be made painless by cocaine, and this drug may give relief during the attacks. General treatment must not be neglected.

Dr. Ingals then exhibited the battery which he uses, which is a large one of the ordinary pattern. He said it was necessary to have a good battery with a large amount of reserve force, so it can be used without the necessity of frequently agitating the fluid. The fluid must be often renewed.

DR. F. O. STOCKTON thought more prominence might have been given to the causal relation of hypertrophied turbinated tissue to hay fever. In all cases of hay fever he had met he had found hypertrophic nasal catarrh. If we treat hay fever, why not also treat the hypertrophic catarrh which is a causal factor in the disease? He always removes the hypertrophied tissue on this account. In all other points he agreed with the writer, especially in the use of cocaine. Since this drug came into use, he has used it in several cases which resembled hay fever with good results. It gave more relief than quinine, belladonna, or any other drug.

DR. ROBERT TILLEY protested against the use of the term hay fever when it is shown it does not depend on the pollen of hay exclusively as a cause. He thought a better term to be idiosyncratic coryza, as it is caused by a multiplicity of circumstances. That morning a patient had visited him in whom the symptoms were almost identical with hay fever, and if they had arisen at the proper season it would have been so diagnosticated. He is a grocer, and the attacks occur whenever he has to handle coffee. Dr. Tilley used cocaine in a four per cent. mixture with bismuth, and it gave immediate relief. He has often in cases of hay fever performed scarification of the inferior turbinated bones and mucous membrane of the septum with good results. He applies first a little cocaine, and very little bleeding follows. With reference to the locality of the sensitive areas in the nose, he thought that certain indefinable pathological conditions of the mucous membrane gave rise to the sensitiveness which may be found in any region where the mucous membrane is in a pathological condition.

DR. G. F. HAWLEY remarked that in passing the Eustachian catheter when it reached the posterior part of the turbinated body, it often produced a reflex cough even in healthy persons. He had one patient in whom asthmatic symptoms occurred the moment this region was touched, and after the removal of hypertrophied tissue by the Jarvis snare the asthma disappeared. Hay fever may be a neurosis or the result by reflex action of disease existing elsewhere. Mackenzie, of Baltimore, relates a case of a young woman who had ovarian disease and had attacks of hay fever during each menstrual period. On examination of the nose there was found a small piece of hypertrophied tissue at the posterior extremity of the inferior turbinated bone, not large enough to obstruct the naris or give rise to any troublesome symptoms of itself, yet when it was removed the hay asthma disappeared forever. It would be hard to define the relation between this tumor and the diseased ovaries which caused monthly attacks of hay asthma, but it seemed to exist.

DR. INGALS stated that he is of the opinion that a

careful examination of every case of hay fever will disclose the presence of a sensitive area. In the case quoted in which the hay fever occurred during the menstrual periods, it was stated that there was a sensitive spot which when irritated gave rise to the asthmatic symptoms. After cauterization the mucous membrane heals in about ten days. A small spot the size of a dime or nickel should be cauterized and then allowed to heal perfectly before another cauterization.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 12, 1885.

VICE-PRESIDENT, EDW. H. TRENHOLME, M.D., IN THE CHAIR.

CANCER OF RECTUM WITH SECONDARY AFFECTION OF STOMACH.

DR. R. J. B. HOWARD exhibited the stomach and intestines of a patient who had recently died at the Montreal General Hospital. The history of the case is as follows: James W., aged 63, had for some time had pain referred to bladder, and was sent into the hospital under Dr. Fenwick, on suspicion of having stone in the bladder. In December, 1884, he began to suffer pain over pubes, slight and limited in area, increased on lying down. This pain increased steadily in intensity, and in April last patient gave up work on this account. At this time there was frequent micturition, both day and night, but urine presented nothing unusual. He now began to lose flesh rapidly. Some three weeks before admission he had some retching and on three occasions vomited. On admission into the hospital June 2, 1885, the above symptoms were present. It was found that the stream during micturition was sometimes arrested, and that the act was attended by pain. No stone was detected in the bladder, and as urine contained some pus, and his prostate was enlarged, he was put on treatment for cystitis. Nothing was discovered when examining prostate per rectum, except the enlargement of that gland. Two days later he had an alarming attack of collapse, and recovering from this, symptoms of pneumonia appeared, of which disease he died on June 9th. Before this a hard tumor was detected in the epigastrium, which was believed to be malignant disease of the pylorus, or possibly the liver. The man was much emaciated, and had a very cachectic appearance.

Necropsy.—Pnemonia of left lung and œdema. In abdomen all the glands in omentum were enlarged, some the size of a walnut, hard and firm. The gastro-colic omentum was puckered up and contained a large nodular mass. Ascending colon bent on itself, and held down by a large mass of new growth, which appeared to originate in the glands of the meso-colon. Sigmoid flexure turned up and fixed to transverse colon by another nodule of cancerous tissue, and lower down, opposite the third lumbar vertebra, adhered to a large mass formed between the layers of the mesentery. The abdominal viscera were removed *en masse*, and on further dissection an ulcerated surface the size of a man's palm, was found occupying the posterior aspect of the lesser curvature of the stomach, and its wall was slightly infiltrated; the pancreas was also involved in this growth. In several other places the walls of the bowel were the seat of similar new growths, usually attacking them from without, and starting from between the layers of the mesentery. All the mesenteric and retro-peritoneal glands were enlarged, firm, and evidently the seat of the same new growth. On the anterior wall of the rectum, corresponding to a mass the size of a bantam's egg, seated in wall of rectum and adherent to the bladder just above the prostate, was an ulcer the size of a ten-cent piece, having raised, rolled ridges, and a somewhat depressed base. The ulcer was about four inches from anus, and no enlarged glands were found below this. Veins of prostatic plexus filled with old clot. Arteries normal. Bladder, with exception of enlarged prostate, normal.

Dr. Howard remarked that this was another of those cases where there was extensive disease of stomach without symptoms. The original disease, without doubt, commenced in the rectum, and extended upwards to the stomach through the glands. He also said that it is most unusual for malignant disease of the rectum to spread so rapidly, and from so slight a local affection to become general carcinoma. The symptoms caused by moderate enlargement of the prostate were more prominent than those caused by the extensive malignant disease.

NEWS ITEMS.

CHICAGO.

(From our Special Correspondent.)

THE MEETING OF THE NEW COMMITTEE ON THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.—The New Committee appointed by the American Medical Association, at its recent session at New Orleans, met at the Palmer House, Chicago, at noon on Wednesday, June 24th. There were present Drs. R. Beverly Cole, of California; J. V. Shoemaker, of Philadelphia; W. H. Wathen, of Louisville; John B. Hamilton, of the Marine-Hospital Service; George F. French, of Minneapolis; F. L. Sim, of Memphis; X. C. Scott, of Cleveland; Robert Battey, of Rome, Ga.; J. S. Billings, of Washington; E. F. Upham, of West Randolph, Vt.; I. Minis Hays, of Philadelphia; Ellsworth Eliot, of New York; E. P. Cook, of Mendota, Ill.; D. A. Linthicum, of Helena, Ark.; D. W. Stormont, of Topeka, Kan.: J. S. Lynch, of Baltimore; George A. Ketchum, of Mobile; A. Y. P. Garnett, of Washington; F. W. Beard, of Vincennes, Ind.; A. H. Wilson, of South Boston, Mass.; A. R. Smart, of Hudson, Mich.; N. F. Essig, of Plattsburg, Mo.; William Pierson, of Orange, N. J.; J. W. McLaughlin, of Austin, Texas; G. Baird, of Wheeling, West Va.; Nicholas Senn, of Milwaukee; and W. E. Duncan, of Ellendale, Dakota.

Dr. Cole, as temporary Chairman of the new committee, called the meeting to order, and, on motion, Dr. William Brodie, of Detroit, President of the American Medical Association, and Dr. N. S. Davis, editor of the *Association Journal*, were invited to join in the deliberations of the Committee.

The resignation of Dr. Austin Flint, of New York, as a member of the Committee, was presented and accepted, and Dr. J. W. S. Gouley, of New York, was elected to fill the vacancy, and he took his seat with the Committee.

The Committee then proceeded to effect a permanent organization, and Dr. Cole of California, was elected Chairman, Dr. J. S. Lynch, of Baltimore, Vice-Chairman, and Dr. Shoemaker, of Philadelphia, Secretary.

Dr. X. C. Scott, of Cleveland, moved that the Chairman appoint a subcommittee of nine to prepare a revision of the rules and preliminary organization of the Ninth International Medical Congress, as published at Washington in 1885, and that this subcommittee report their revision to the Committee at its evening session on the 24th of June. Adopted.

The Chair appointed the subcommittee as follows: Dr. X. C. Scott, of Ohio; Dr. Wathen, of Kentucky; Dr. Billings, of U. S. A.; Dr. Shoemaker of Philadelphia; Dr. Hamilton, of U. S. Marine-Hospital Service; Dr. Upham, of West Randolph, Vermont; Dr. Gouley, of New York; Dr. McLaughlin, of Austin, Texas, and Dr. Linthicum, of Helena, Arkansas.

At the evening session the subcommittee asked for further time, which was granted, and the Committee adjourned to meet the next morning at 9 o'clock.

On Thursday morning Dr. X. C. Scott, presented the report of the subcommittee, which was adopted.

The principal change in the Rules was in that regarding membership. It was modified so as to read, "The American Members shall consist of delegates from the American Medical Association, and from Medical Societies in affiliation with the American Medical Association, each of said societies being entitled to one delegate for every ten members." This alteration reducing the membership of the Congress to the constituency of the American Medical Association, and excluding the large majority of the profession from admission to the Congress, was opposed by Dr. Billings, on behalf of the original committee, but without avail.

Rule 12, making presidents of the Sections *ex officio* members of the General Committee, was stricken out.

The organization of the Congress was then elected as follows:

Dr. Austin Flint was retained as *President.* Dr. Henry I. Bowditch, of Boston, was stricken from the list of *Vice-Presidents*, and there were added Drs. John L. Atlee, of Lancaster, Pa.; O. W. Holmes, of Boston; W. O. Baldwin, of Montgomery, Ala.; J. M. Toner, of Washington; Wm. Brodie, of Detroit; L. A. Sayre, of New York; W. W. Dawson, of Cincinnati; and H. H. Skillman, of Lexington, Ky.

Dr. John H. Packard, of Philadelphia, was elected *Secretary-General*, and Dr. F. S. Dennis, Chairman of the *Finance Committee.*

The Executive Committee was constituted as follows: Drs. Beverly Cole, of Cal., Chairman; J. V. Shoemaker, of Philadelphia; A. Y. P. Garnett, of Washington; J. H. Packard, of Philadelphia; F. S. Dennis, of New York; J. S. Lynch, of Baltimore; J. W. S. Gouley, of New York; William Pierson, of Orange, N. J.; Christopher Johnston, of Baltimore; and J. C. Tucker, of Alameda, Cal.

A *Local Committee of Arrangements* was also appointed, consisting of Dr. A. Y. P. Garnett, of Washington, Chairman, and all of the Washington members of the Committee and of the Councils of the Sections.

In the Section of *Medical Education, Legislation, and Registration*, Dr. S. E. Chaillé, of New Orleans, displaced Dr. H. P. Bowditch, of Boston, as President, and Drs. George Cupples, of Texas, and R. J. Dunglison, of Philadelphia, were substituted as Vice-Presidents or Drs. Chaillé and Stillé, of Philadelphia.

In the Section of *Anatomy* Dr. C. W. Kelly, of Louisville, and Dr. W. H. Pancoast, of Philadelphia, were added as Vice-Presidents.

In the Section of *Physiology* Dr. H. P. Bowditch, of Boston, was added as a Vice-President.

In the Section of *Medicine*, to which that of *Nervous and Mental Disease* was added, Drs. Alonzo Clark, of New York, S. Weir Mitchell, of Philadelphia, and P. G. Robinson, of St. Louis, were added as Vice-Presidents.

In the Section of *Surgery*, Dr. Moses Gunn, of Chicago, was added as a Vice-President.

The Sections of *Obstetrics* and *Gynecology* were united, and Dr. Battey, of Rome, Ga., made President, and Drs. T. A. Reamy, of Cincinnati, John Goodman, of Louisville, Thomas Opie, of Baltimore, and T. Gaillard Thomas, were added to, and Dr. Thomas Addis Emmet, of New York, was stricken from the list of Vice-Presidents.

In the Section of *Ophthalmology* Dr. E. Williams, of Cincinnati, was substituted for Dr. Henry D. Noyes, of New York, as President, and Dr. Noyes and Dr. E. L. Holmes, of Chicago, were made Vice-Presidents.

In the Section on *Otology*, Dr. C. H. Burnett, of Philadelphia, was stricken from the list of Vice-Presidents and placed on the Council, and Drs. A. M. Wilder, of San Francisco, and D. S. Reynolds, of Louisville, were made Vice-Presidents.

In the Section of *Dermatology and Syphilis*, Dr. J. M. Keller, of Hot Springs, Ark., was made Vice-President.

In the Section of *Laryngology*, Dr. Lefferts was displaced as President, and Dr. J. N. Mackenzie, of Baltimore, substituted, and Dr. M. F. Coomes, of Kentucky, was made a Vice-President.

In the Section of *Public and International Hygiene*, Dr. Ezra M. Hunt, of Trenton, N. J., was stricken from, and Drs. J. L. Cabell, of Virginia, A. L. Carroll, of New York, and J. N. McCormick, of Bowling Green, Ky., were added to, the list of Vice-Presidents.

In the Section of *Military and Naval Surgery and Medicine*, Drs. Donald MacLean, of Ann Arbor, P. A. Hooper, of Arkansas, and E. H. Gregory, of St. Louis, were made Vice-Presidents.

In the Section of *Practical and Experimental Therapeutics*, Dr. E. R. Squibb, of Brooklyn, was added as Vice-President.

In the Section of *Diseases of Children*, Dr. Abraham Jacobi, of New York, was stricken out as President, and Dr. J. Lewis Smith, of New York, substituted, and Dr. DeLaskie Miller, of Chicago, was added as a Vice-President.

Numerous changes and additions were also made in the Councils of the various Sections.

THE INTERNATIONAL MEDICAL CONGRESS AND THE MEDICAL PROFESSION OF PHILADELPHIA.—A meeting of the members of the medical profession of Philadelphia concerned in the organization of the International Medical Congress of 1887, was held at the Hall of the College of Physicians, on Monday, June 29th, Dr. Alfred Stillé in the Chair. Dr. David W. Yandell, of Louisville, was present by invitation.

After hearing a report of the proceedings of the new Committee, at its meeting held in Chicago last week, and after considering the changes in the organization which were made, including the restriction of the scope of the membership by which a large proportion of the profession of the country would be excluded from the Congress, the following preamble and resolution were unanimously adopted:

Whereas, Certain serious changes have been recently effected in the preliminary organization and rules for the International Medical Congress of 1887, it has seemed desirable for the members of the General Committee and the officers of the Sections resident in Philadelphia to meet for consultation; and

Whereas, It has appeared that these changes are inconsistent with the original plan, and detrimental to the interests of the medical profession in America, and of the International Medical Congress; therefore, be it

Resolved, That we, the undersigned, consider that our duty to the profession and to ourselves requires us to decline to hold any office whatsoever in connection with the said Congress as now proposed to be organized:

D. Hayes Agnew,	S. Weir Mitchell,
Roberts Bartholow,	William F. Norris,
John H. Brinton,	William Osler,
Charles H. Burnett,	John H. Packard,
R. A. Cleemann,	Theophilus Parvin,
J. M. Da Costa,	William Pepper,
Louis A. Duhring,	Edward T. Reichert,
William H. Ford,	Albert H. Smith,
William Goodell,	Robert Meade Smith,
Samuel W. Gross,	Alfred Stillé,
Robert P. Harris,	George Strawbridge,
I. Minis Hays,	William Thomson,
William W. Keen,	James Tyson,
Joseph Leidy,	Horatio C. Wood,

David W. Yandell.

PROFESSIONAL OPINION ON THE INTERNATIONAL CONGRESS ORGANIZATION.—The second day of the meeting was ushered in by a somewhat verbose discussion regarding the action of the committee relative to the International Medical Congress. From our best information regarding the gentlemen who were instrumental in initiating this uncalled-for windstorm, we fancy the trouble originated from disappointment. They are sore-heads of the "rule or ruin" type. Some of these men have for years endeavored to supply the wind-power for the American Medical Association meetings. The International Medical Congress requires a more reliable power—a steadier power; hence these dress-parade sort of fellows were, of necessity to the welfare of the Congress, relegated to the rear.

In order to conceal the true character of the charges, they hid behind the New Code prejudices, charging that New Code men were put on the committees. However objectionable the New Code men may be, we hope they are governed by purer principles than men whom we know to be ostensibly sticklers for Old Code theories, but are practically no-code practitioners, except such as will give them personal aggrandizement.

We have carefully looked over the "rules and preliminary organization," and can see no reason to find fault with the action of the committee. We feel entirely satisfied that they have acted in the best interest of the American profession in general. Nearly all the States, the District of Columbia, and Canada, have been represented by the appointment of prominent and distinguished physicians on the committees and sections. New York, having the largest number of widely known men, is justly entitled to a larger number of representatives. A few States are left out, which can be the only tangible objection to the appointments. It must not be forgotten that the States so largely represented are those in which most of the medical teachers and authors reside, without whom, be they Old or New Code men, the American profession could not be represented in its best light, which, above everything of a technical nature, should be sought after.

Judging the whole matter from an unprejudiced standpoint—although some features may savor of suspicion—we think the committee acted in the best interests of the medical profession, and we are pretty certain that the auxiliary committee of thirty-five, appointed at the New Orleans meeting, will not undo any of the work of the original committee, but will lend their good counsel towards perfecting the work already begun, of making the Congress highly creditable to the medical profession of the United States. To this end we hope they will work in perfect peace and harmony.—*Kansas City Medical Record*, June, 1885.

The question of spelling Nation with a big N, came up at New Orleans, at the meeting of the American Medical Association, and appears to have been decided in the negative.

It seems that last year a committee was appointed to invite the International Medical Congress to hold its next meeting here. This committee was instructed, in case the invitation was accepted, "to act as an Executive Committee, *with full power* to fix the time and to *make all necessary and suitable arrangements* for the meeting of such Congress." The words which we have italicized would seem to indicate beyond a peradventure that the Association intended to give the Committee *carte blanche* in relation to the whole affair. The Committee was successful in getting the Congress, and accordingly proceeded to carry out its instructions, as given above, by appointing the officers of the different sections and the various necessary subcommittees. We received the list of appointees some time ago, and failed to find anything to criticise. We thought the names had been selected with great care, to secure men of, as far as possible, National, if not International, reputation.

But not so with all. The Committee had made no provision for the eloquent champion of the pap-chewing mothers of Texas; they had ignored the oleates; they had not tested all their appointees by the *shibboleth* of the Code; they had not given the "rural deestricts" their *numerical* ratio of the offices; whole States and Territories were entirely ignored; even Ohio had but fourteen, and of these her metropolis had all but one, while New York, Philadelphia, and Boston were liberally remembered. And so there was a kick. And so it was decided to increase the size of the Committee, and otherwise so arrange matters that the ranches of Texas, the prairies of Kansas, the mines of Colorado, and the forests and wheat fields of the great Northwest should all be "represented" among the officers of this Congress.

Verily, we trust the original Committee, and their rustic accessories, may duly exercise, the former pa-

tience, the latter humility, and both moderation, to the end that the Congress may be a success; for unless they do this we greatly apprehend the "kick" will overturn "the fat into the fire."—*Columbus Medical Journal*, June, 1885.

We were as strongly opposed as any to the sectionalism which appeared in the appointments by the original Committee, but that this Committee were vested with all power to do just as it did, seems very clear under the resolution which created it. That being the case, the wisdom of the Association, to say nothing of its right, in nullifying the work already done in the way of organizing the Congress, does not seem clear. An authority on parliamentary law to whom we have submitted the whole question, declares that the Association has clearly committed an error in its meddling with the original committee. But whether it was justified or not in thus seeking to undo what was done in good faith, is a comparatively trivial matter. The great injury it has done the profession of this country, of which the American Medical Association is but a fraction, by making it appear in the eyes of our European brethren as a quarrelling, querulous agglomeration, will make any victory which the Association may gain over the original committee, too dearly bought. Whether the original committee will succumb remains to be seen. If it should not, the confusion will be worse confounded. —*Medical Age* (Detroit), June 25, 1885.

THE PLYMOUTH EPIDEMIC.—The regular monthly meeting of the American Society of Public Analysts was held at the rooms of the Health Department, Brooklyn, on June 22, 1885, the President, E. H. Bartley, M.D., in the chair.

Dr. Cyrus Edson, of the New York Health Department, who recently visited Plymouth with Dr. Taylor and Mr. Martin, as a Committee from the New York Board of Health, read a paper on the "Plymouth Epidemic of Typhoid Fever; its Origin and Results." The paper was illustrated with lantern views, from photographs taken by Mr. Martin, and these views gave a very accurate idea of the condition of affairs in the town.

Dr. Edson's paper, although written independently of the essays of Dr. L. H. Taylor, which have recently been printed in THE MEDICAL NEWS, endorses the opinions stated by the latter gentleman, which is, that the origin of the epidemic could be traced to the case of typhoid fever in the Davis family, living near the reservoir.

In the discussion which followed, and which was carried on by many prominent physicians and health officers, the unanimous opinion expressed was to the effect that the constant spread of the disease during the past month was due to carelessness. When the character and origin of the disease were known there was no excuse for the neglect of disinfection, especially of the discharges. It was found that the wells, which previously had not been polluted, would soon become contaminated with the excrement, which is often thrown into shallow privy-vaults. The prevalent opinion was that, if rigid sanitary laws were not enforced immediately, the epidemic would continue to spread.

Mr. E. W. Martin, chemist to the Board of Health of New York, presented a table of analyses of the reservoir water; that from the Susquehanna River taken at the intake to the pumps, and the water from one of the wells. It will be seen by the table that the reservoir water presents the least evidence of organic pollution; river water next; while the well water is shown to be grossly contaminated. Amounts are given in grains in U. S. gallon.

	Reservoir water.	Susquehanna water.	Well, Nottingham St.	Well, Welch Hill.
Chlorine	0.058	0 117	2 566	1.108
Nitrates	faint trace	trace	trace	none
Nitrogen in nitrites and nitrates	0 028	0.035	1.440	0.096
Free ammonia	0 0006	0.0035	0.0006	none
Albuminoid ammonia	0.0035	0.0111	0 0027	0 0006
Organic and volatile	0.058	1.458	5 540	2.216
Total solids	1.458	3.791	19 828	6.415

NOTES AND QUERIES.

DIAGNOSIS OF VAGINITIS.

To the Editor of THE MEDICAL NEWS.

SIR: In your issue of June 13, of the present year, it is stated that at a recent meeting of the Paris Obstetrical and Gynecological Society, Martineau stated a most important fact by which specific could be distinguished from simple vaginitis. "It depends upon this that in the specific form of the disease the pus is always acid, while in the simple it is alkaline." Since the mucus of the vagina is normally acid, would not this fact detract from the value of Martineau's statement? Respectfully,

F. A. BURRALL, M.D.

48 WEST SEVENTEENTH STREET, NEW YORK.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 16 TO JUNE 29, 1885.

PORTER, J. Y., *Captain and Assistant Surgeon.*—Having been found incapacitated for active service by an army retiring board, ordered to proceed to his home and report by letter to the Adjutant-General of the Army.—*S. O. 136, A. G. O.*, June 15, 1885.

HARTSUFF, ALBERT, *Major and Surgeon.*—Assigned to duty at Fort Hamilton, N. Y. H.—*S. O. 133, Department of the East*, June 24, 1885.

MIDDLETON, J. V. D., *Major and Surgeon.*—Granted one month's leave with permission to apply for fifteen days' extension, to take effect about 15th proximo.—*S. O. 88, Department of Missouri*, June 19, 1885.

BROWN, H. E., *Major and Surgeon.*—Assigned to duty as Post Surgeon, Fort Reno, Indian Territory.—*S. O. 91, Department of Missouri*, June 24, 1885.

TAYLOR, BLAIR D, *Captain and Assistant Surgeon.*—Ordered from Department of Texas to Department of the East.—*S. O. 141, A. G. O.*, June 20, 1885.

CARTER, WILLIAM F., *Captain and Assistant Surgeon.*—Ordered from Department of the East to Department of Texas.—*S. O. 141, A. G. O.*, June 20, 1885.

DAVIS, WILLIAM B., *Captain and Assistant Surgeon.*—Leave of absence extended three months.—*S. O. 142, A. G. O.*, June 23, 1885.

EBERT, R. G., *First Lieutenant and Assistant Surgeon.*—Granted leave of absence for one month, to take effect about July 5.—*S. O. 97, Department of Colorado*, June 17, 1885.

ROBERTSON, R. L., *First Lieutenant and Assistant Surgeon.*—Now on leave of absence, directed to report in person by July 7, 1885, to Commanding Officer at Columbus Barracks, Ohio, to accompany detachment of recruits to Department of Texas. On completion of this duty to rejoin his proper station.—*S. O. 143, A. G. O.*, June 24, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE TWO WEEKS ENDING JUNE 27, 1885.

LONG, W. H., *Surgeon.*—Granted leave of absence for three days, June 18, 1885.

FESSENDEN, C. S. D., *Surgeon.*—Leave of absence extended seven days on account of sickness, June 24, 1885.

WHITE, J. H., *Assistant Surgeon.*—Granted leave of absence for twenty-one days, June 23, 1885.